

**Fishes Taken During Shrimp Trawling
Along the South Atlantic Coast of
the United States, 1931-35**



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UNITED STATES DEPARTMENT OF THE INTERIOR

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ABSTRACT

Fish of numerous families and species are taken with shrimp on the shrimping grounds. Records of the fish taken during a study of the white shrimp by the U.S. Bureau of Fisheries, are provided. These records cover the coast from Cape Romain, S.C., to Cape Kennedy, Fla., and are organized under four basic areas: South Carolina Outside, Georgia Outside, Georgia Inside, and Florida Outside. The entire region is treated also as a unit. Yearly and monthly average numbers of fish taken per hour of trawling and percentages of the catch are provided for all species for the region and for the several basic areas.

Seasonal variation in the numbers of fish on the shrimp fishing grounds is large; numbers are lowest during the late winter and spring, build up rapidly in the summer and early fall, and are highest in the late fall and early winter.

The croaker family (Sciaenidae) was the most abundant and important found on the shrimp fishing grounds. Croakers were captured in greater numbers than all other families of fish combined in every month of the year.

Four families of fish--The Sciaenidae (croakers), Carangidae (jacks), Ariidae (sea catfish), and Bothidae (flounders)--were taken in greatest numbers per hour of trawling and together contributed almost 87 percent of the yearly average catch in the region.

Seven species of fish--Stellifer lanceolatus (star drum), Micropogon undulatus (Atlantic croaker), Leiostomus xanthurus (spot), Menticirrhus spp. (king whiting), Chloroscombrus chrysurus (bumper), Cynoscion regalis (gray seatrout), and Etropus crossotus (fringed flounder)--each contributed 3 percent or more of the yearly average catch for the region, and together represented over 76 percent of the yearly average catch in the region.

INTRODUCTION

The U.S. Bureau of Fisheries, during studies on the white shrimp (Penaeus setiferus) along the south Atlantic coast of the United States in 1931-35, recorded the fish captured incidentally to trawling for shrimp. These records give information on relative and seasonal abundances of the many families and species of fish associated with shrimp on the fishing grounds. These data enable us to make a good estimate of the average catch of fish taken during commercial shrimp fishing.

METHODS

The data were obtained from operations of the U.S. Bureau of Fisheries boat Launch 58, a 40-foot (12.2-m.) shrimp trawler (fig. 1) using standard commercial shrimp trawls, which were 75 feet (22.3 m.) wide and made of 1-3/4-inch (4.4-cm.) stretched mesh netting. Hauls were made at 2 to 3 knots and lasted 1 to 1-1/2 hours. Fish were sorted and counted aboard the boat--when catches were large a subsample was used. Specimens representing species new to the catches, or for which



Figure 1.--Launch 58, a 40-foot (12.2-m.) shrimp trawler used in the studies of white shrimp along the south Atlantic coast in 1931-35.

identification was in doubt, were preserved for later identification.

From 1931 through April 1933 the work was confined largely to Georgia, though some trawling was done in outside waters off northern Florida. In Georgia, hauls were made regularly in all sections of the fishery, including salt-water rivers and creeks, sounds, and the outside grounds.

Operations in Georgia were curtailed in May 1933, and work was extended to cover outside waters in South Carolina and central Florida, at a series of stations extending from Cape Romain, S.C., to Cape Kennedy, Fla. Usually two hauls were made in each month during the operations in each locality. The localities (fig. 2) and months fished were as follows, from north to south.

South Carolina:

1. Off Cape Romain--September 1934 through July 1935.
2. Off Stono Inlet--May 1933 through July 1935, except May through August 1934.
3. Off Gaskin Banks or Fripp Inlet--same months as locality 2.

Georgia:

4. Off St. Catherines Island--May 1933 through July 1935, except May through August 1934.
5. Off Brunswick--same months as locality 4.
6. Inside waters near Brunswick--same months as locality 4.

The above three localities are in addition to the concentrated work in Georgia from 1931 through April 1933.

Florida:

7. Off Fernandina--May 1933 through July 1935, except May through August 1934.
8. Off St. Johns River--May 1933 through April 1934, and August 1934.
9. Off St. Augustine--May 1933 through April 1935, except May through July 1934.
10. Off New Smyrna--same months as locality 9.
11. Off Cape Kennedy--same months as locality 9.

The outside shrimping grounds in the work area or region were confined to a narrow

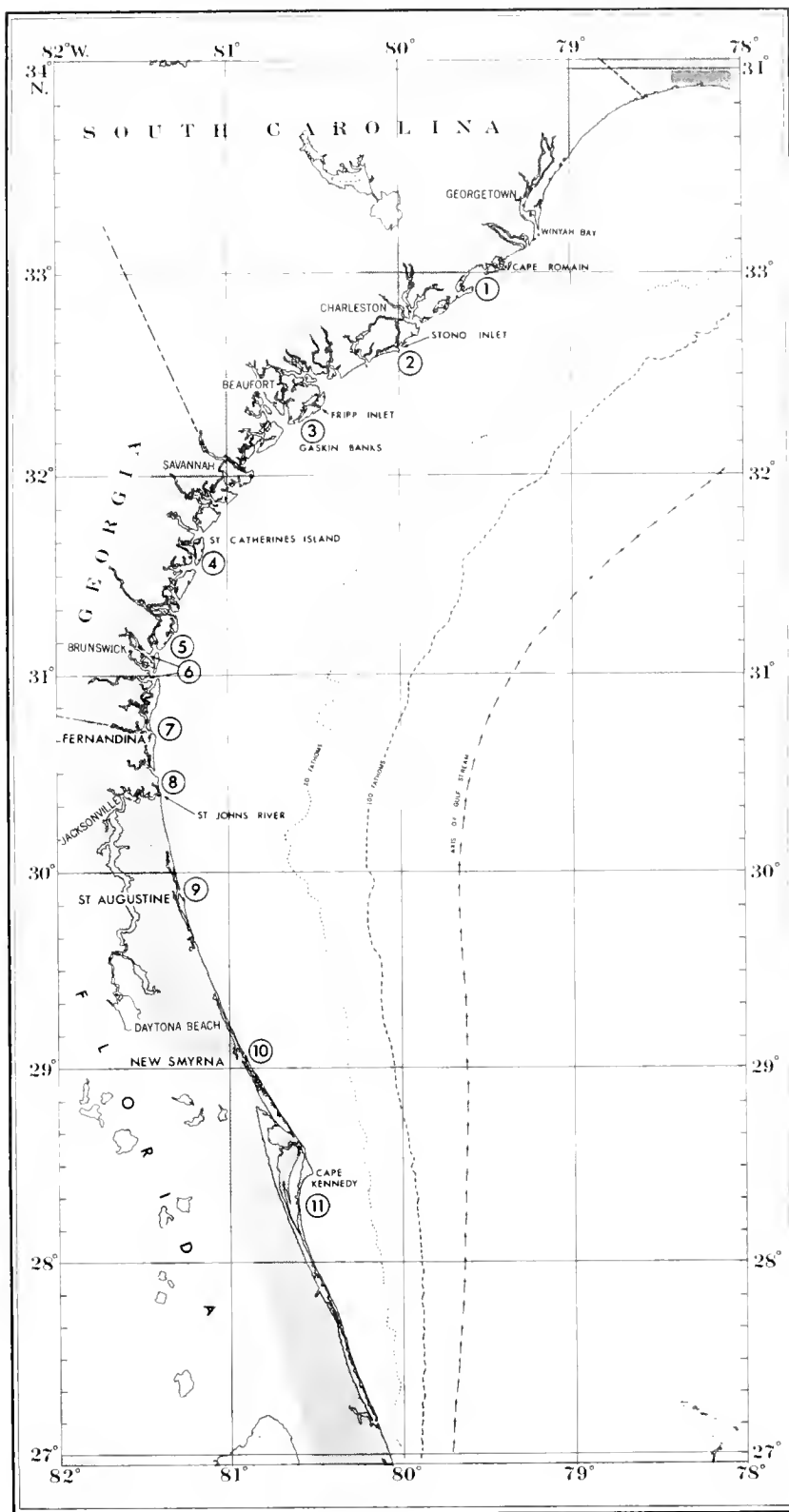


Figure 2.--Coasts of South Carolina, Georgia, and part of Florida, showing general locations of sampling stations.

coastal strip not over 10 nautical miles (18.5 km.) wide, but most of the ocean fishery was between the shoreline and about 6 nautical miles (11.1 km.) offshore. Trawling was largely limited to this strip in South Carolina and Florida, but in Georgia the work was extended to inside grounds--salt-water rivers, creeks, and sounds. Anderson, Lindner, and King (1949) gave a detailed account of the fishery.

The data for the region were organized under four basic areas: South Carolina Outside; Georgia Outside; Georgia Inside; and Florida Outside. In addition, the following combinations were made: Georgia Combined; South Carolina, Georgia, and Florida, Outside Combined; and All Areas Combined--the last representing the entire work area or region as a unit. Fishing localities for each area were as previously listed. Table 1 gives, by month, the number of hours of trawling in the basic areas and combinations thereof.

Monthly data for all years were combined to give average figures. Tables 2 to 8 give for each area and combination of areas, by species and month: the average number of fish captured per hour of trawling, the percentage of the total catch for the month, and the actual number of fish captured. A yearly average number of fish per hour of trawling and percentage of total catch are provided for each species in the right-hand column, and a total, by months, for all species combined is given at the end of each table.

Data for 10 families that each represented 1 percent or more of the yearly average catch for the region are summarized in table 9, by areas, for yearly average number per hour of trawling and yearly average percentage of the total catch. Data for 17 species that each represented 1 percent or more of the yearly average catch for the region are summarized in table 10.

In table 11 are shown for the 10 most important families, by areas and by month, the average number of fish per hour of trawling, and percentage of the total catch. A yearly average number per hour of trawling and percentage of the total catch are provided for each family and each area. Similar data for the 17 most important species are summarized in table 12.

Table 13 provides a list of the species taken, by family, and their common names.

REGION (ALL AREAS COMBINED)

For all species combined, the monthly average number of fish per hour of trawling had a large seasonal variation (fig. 3). From a low of just over 900 fish per hour in February and March, the number rose to 1,000 to 1,200 during April, May, and June; increased rapidly during summer and early fall to a peak in November and December at 2,700 to 2,800

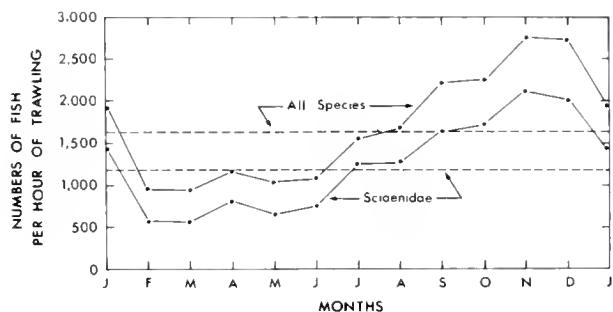


Figure 3.--Numbers of fish taken per hour of trawling during shrimp fishing, all areas combined, all species by months for all years combined (see table 8). Family Sciaenidae shown for comparison. Broken lines are yearly averages.

fish per hour of trawling; and declined abruptly in January toward the seasonal low in February and March.

The croaker family (Sciaenidae) is the most abundant and important group of fish taken with shrimp on the fishing grounds. To emphasize the importance, the monthly average number of sciaenids per hour of trawling is shown in figure 3 (also in figures 4 and 5, which cover the individual areas).

In every month of the year the sciaenids were taken in greater numbers than were all other families of fish combined. The yearly average for all species combined was about 1,600 fish per hour of trawling, of which nearly 1,200 were Sciaenidae--or 3 of every 4 fish taken.

Families

Ten families of fish each represented 1 percent or more of the yearly average catch for the region and together contributed almost 98 percent of all fish taken--ranging from about 97 to 99 percent in the separate areas (table 9).

Four of these families (Sciaenidae, Carangidae, Ariidae, and Bothidae) each represented 3 percent or more of the yearly average catch for the region and the greatest numbers of fish per hour of trawling. Together, fishes of these four families contributed 1,420 of the 1,633 yearly average number per hour of trawling, or almost 87 percent of the yearly average catch for the region.

Sciaenidae.--The yearly average catch of croakers for the region was 1,191 per hour of trawling, representing 73.0 percent of the total catch. They were most abundant in Florida Outside at 1,962 per hour of trawling and 72 percent of the catch; next in South Carolina Outside, 1,730 per hour of trawling and 83 percent of the catch; then Georgia Inside, 1,096 per hour of trawling and 73 percent of the catch; and least abundant in Georgia

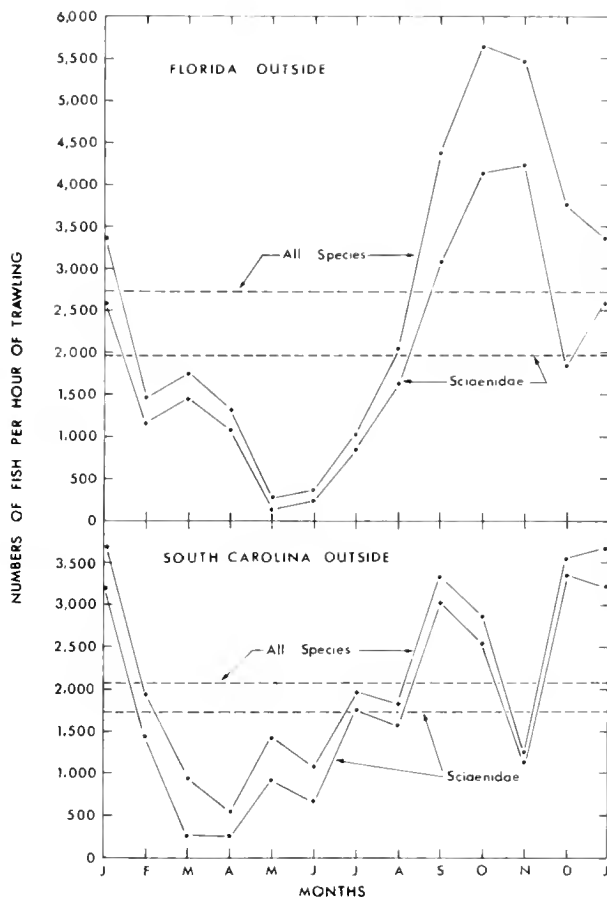


Figure 4.--Numbers of fish taken per hour of trawling during shrimp fishing, South Carolina Outside and Florida Outside, all species by months for all years combined (see tables 2 and 5). Family Sciaenidae shown for comparison. Broken lines are yearly averages.

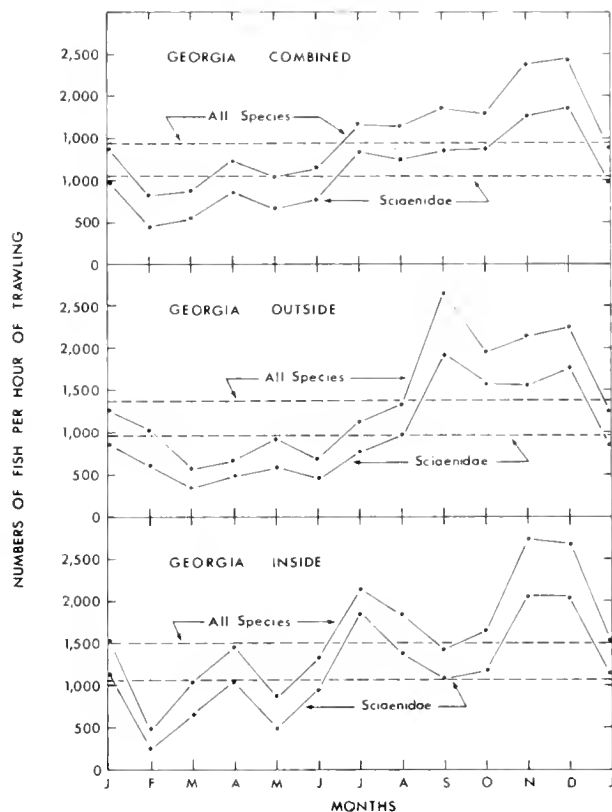


Figure 5.--Numbers of fish taken per hour of trawling during shrimp fishing, Georgia Inside, Georgia Outside, and Georgia Combined, all species by months for all years combined (see tables 3, 4, and 6). Family Sciaenidae shown for comparison. Broken lines are yearly averages.

Outside, 983 per hour of trawling and 71 percent of the catch.

Fewer than 600 sciaenids were taken per hour of trawling in February and March; the number increased slowly during spring and early summer, spurted to almost 1,300 in July and August, continued to climb during early fall, and peaked at 2,000 to 2,100 in November and December; catches declined in January and continued to the low in February and March (fig. 6).

The percentage of sciaenids in the monthly average catches was lowest--60 to 61 percent--during February and March, increased during spring, and reached and maintained a level of 73 to 83 percent from July to January (fig. 7).

Carangidae.--The yearly average catch of jacks for the region was 89 per hour of trawling, representing 5.4 percent of the total catch. Catch per hour of trawling and percentage of the catch in different areas, ranked in descending order of importance were: Florida

Outside, 388 per hour and 14 percent of the catch; Georgia Outside, 111 per hour and 8 percent; South Carolina Outside, 20 per hour and about 1 percent; and Georgia Inside, 18 per hour and about 1 percent of the catch.

Fewer than 10 carangids were taken per hour of trawling in March and April; the number increased rapidly and steadily through the late spring, summer, and fall, to peak at 287 in December, and then declined to about 126 in January and continued to the low in March and April (fig. 6).

Carangids contributed about 1 percent or less of the monthly average catches in March and April, increased during late spring, reached and maintained a level of about 6 to 8 percent during late summer and fall, exceeded 10 percent in December, peaked at over 22 percent in January, declined abruptly in February, and continued to the low in March and April (fig. 7).

Ariidae.--The yearly average catch of sea catfishes for the region was 81 per hour of trawling, representing 4.9 percent of the total catch. They were most abundant in Florida

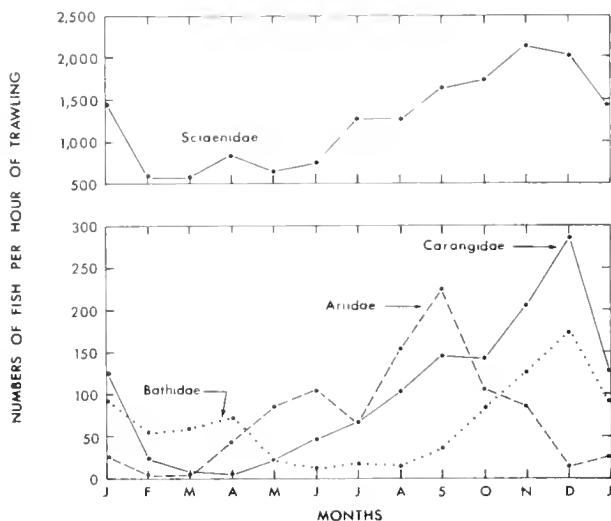


Figure 6.--Numbers of fish of the families Sciaenidae, Carangidae, Ariidae, and Bothidae taken per hour of trawling in different months during shrimp fishing; all areas and years combined.

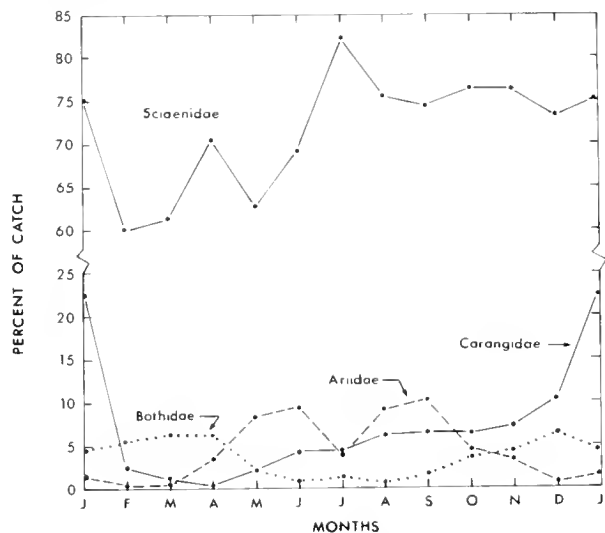


Figure 7.--Percentage of the catch of fish taken during shrimp fishing contributed by the families Sciaenidae, Carangidae, Ariidae, and Bothidae, by month for all areas and years combined.

Outside at 153 per hour of trawling and 5.7 percent of the catch; next in Georgia Inside, 95 per hour of trawling and 6.3 percent of the catch; then Georgia Outside, 47 per hour of trawling and 3.4 percent of the catch; and least abundant in South Carolina, 44 per hour of trawling and 2.1 percent of the catch.

Fewer than four catfish were taken per hour of trawling in February and March; the number increased steadily and rapidly during spring and summer, peaked at about 220 in September, declined abruptly during October and November, and continued to decline to the low in February and March (fig. 6).

The contribution of ariids to the monthly average catches was least--1.3 percent or less--from December through March, increased rapidly in April, maintained a level of about 8 to 10 percent during late spring to early fall, and declined rapidly during late fall to the winter low starting in December (fig. 7).

Bothidae.--The yearly average catch of flounders for the region was about 58 per hour of trawling, representing 3.6 percent of the total catch. They were most abundant in Georgia Inside at 84 per hour of trawling and 5.5 percent of the catch; next in Georgia Outside, 40 per hour of trawling and 2.9 percent of the catch; and least abundant in Florida Outside and South Carolina Outside, about 21 per hour of trawling and less than 1 percent of the catch.

Only 10 to 19 bothids were taken per hour of trawling from June to August; the number increased rapidly during the fall, peaked at about 175 in December, declined sharply in January, and generally continued to decline to the summer low (fig. 6).

Flounders contributed less than 2 percent of the monthly average catches from June to September, increased during October, and maintained a level of 4.6 to 6.4 from November to April (fig. 7).

Species

Seventeen species each contributed 1 percent or more of the yearly average catch for the region and, together, represented 94 percent of all fish taken and 92 to 95 percent of the fish taken in the separate areas (table 10). Seven of the 17 species (*Stellifer lanceolatus*, *Microgobius undulatus*, *Leiostomus xanthurus*, *Menticirrhus* spp., *Chloroscombrus chrysurus*, *Cynoscion regalis*, and *Etropus crossotus*) each represented 3 percent or more of the yearly average catch for the region and the greatest numbers of fish per hour of trawling. Together they contributed 1,247 of the 1,633 yearly average number per hour of trawling and over 76 percent of the yearly average catch for the region.

STELLIFER LANCEOLATUS.--The yearly average catch of star drum (Sciaenidae) for the region was 672 per hour of trawling, representing 41.2 percent of the total catch. They were most abundant in South Carolina Outside at 809 per hour of trawling and 38.8 percent of the catch; next in Florida Outside, 774 per hour of trawling and 28.4 percent of the catch; then Georgia Inside, 735 per hour of trawling and 48.9 percent of the catch; and least abundant in Georgia Outside, 528 per hour of trawling and 38.0 percent of the catch.

Fewer than 200 star drum were taken per hour of trawling in February; the number increased steadily through the spring, summer,

and fall, peaking at over 1,300 in November; catches began to decline in December and continued downward to the low in February (fig. 8).

Star drum contributed only 20 percent of the monthly average catch in February, but this percentage increased rapidly during the spring, summer, and fall to a peak of 52 percent in October; it then declined to 49 percent in November, and continued declining to the low in February (fig. 9).

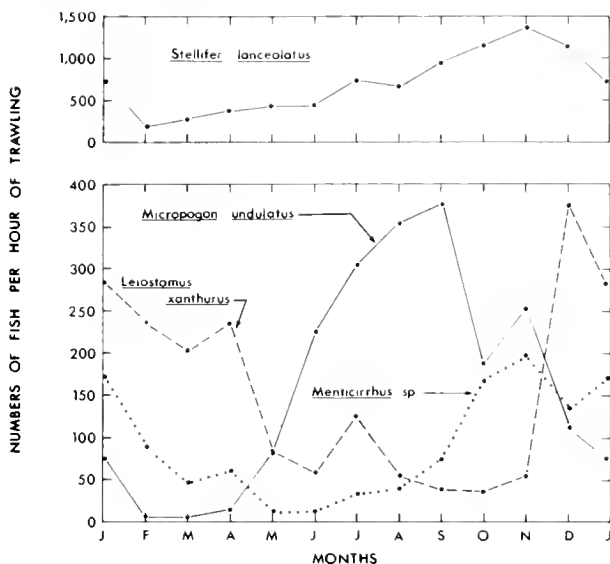


Figure 8.--Numbers of fish taken per hour of trawling during shrimp fishing, all areas combined, species *Stellifer lanceolatus*, *Micropogon undulatus*, *Leiostomus xanthurus*, and *Menticirrhus* spp., by months for all years combined.

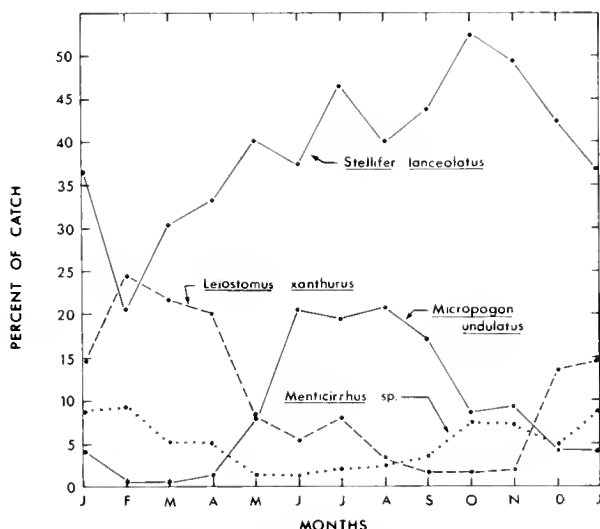


Figure 9.--Percentage of the catch of fish taken during shrimp fishing, all areas combined, species *Stellifer lanceolatus*, *Micropogon undulatus*, *Leiostomus xanthurus*, and *Menticirrhus* spp., by months for all years combined.

MICROPOGON UNDULATUS.--The yearly average catch of Atlantic croakers (Sciaenidae) for the region was 171 per hour of trawling, representing 10.5 percent of the total catch. They were most abundant in Florida Outside at 476 per hour of trawling and 17.5 percent of the catch; next in South Carolina Outside, 152 per hour of trawling and 7.3 percent of the catch; then Georgia Outside, 140 per hour of trawling and 10.1 percent of the catch; and least abundant in Georgia Inside, 129 per hour of trawling and 8.6 percent of the catch.

About 5 Atlantic croakers were taken per hour of trawling in February and March; the number increased very rapidly during spring and early summer to peak at 353 to 377 in August and September, and then decreased rapidly during the fall and winter to the low in February and March (fig. 8).

Atlantic croakers contributed less than 1 percent of the monthly average catches in February and March, increased rapidly in April and May, were a major contributor at 17.0 to 20.9 percent from June to September, and declined abruptly during the fall and winter to the low in February and March (fig. 9).

LEIOSTOMUS XANTHURUS.--The yearly average catch of spot (Sciaenidae) for the region was 144 per hour of trawling, representing 8.8 percent of the total catch. Spots were most abundant in South Carolina Outside at 466 per hour of trawling and 22.3 percent of the catch; next in Florida Outside, 156 per hour of trawling and 5.7 percent of the catch; and least abundant in Georgia, at about 115 per hour of trawling and 7.9 percent of the catch.

About 36 to 39 spots were taken per hour of trawling in September and October; the number increased during November, peaked at 377 in December, remained at a high level of 202 to 282 from January to April, and declined during spring and summer to the low in the fall (fig. 8).

Spots contributed 2 percent or less of the monthly average catches from September to November, about 14 percent during December and January, 20 to 24 percent from February to April, and declined rapidly during late spring and summer to the low in the fall (fig. 9).

MENTICIRRHUS spp..--The yearly average catch of king whiting (Sciaenidae) for the region was 78 per hour of trawling, representing 4.8 percent of the total catch. They were most abundant in Florida Outside at 198 per hour of trawling and 7.3 percent of the catch; next in South Carolina Outside, 100 per hour of trawling and 4.8 percent of the catch; then Georgia Outside, 99 per hour of trawling and 7.1 percent of the catch; and least numerous in Georgia Inside, 34 per hour of trawling and 2.3 percent of the catch.

Only 12 king whiting were taken per hour of trawling in May and June; the number increased

steadily through summer and early fall, reached peak abundance at 134 to 198 from October to January, and declined rapidly to the low in May and June (fig. 8).

The species contributed only 1.2 percent of the monthly average catches in May and June; this percentage increased slowly to about 7 percent in October and November and about 9 percent in January and February, and then declined to the low in May and June (fig. 9).

CHLOROSCOMBRUS CHRYSURUS.--The yearly average catch of bumper (Carangidae) for the region was 68 per hour of trawling, representing 4.2 percent of the total catch. They were most abundant in Florida Outside at 274 per hour of trawling and 10.1 percent of the catch; next in Georgia Outside, 93 per hour of trawling and 6.7 percent of the catch; then Georgia Inside, 14 per hour of trawling and 1 percent of the catch; and least abundant in South Carolina Outside, 11 per hour of trawling and 0.6 percent of the catch.

About 4 to 7 bumpers were taken per hour of trawling during March and April; numbers increased over late spring and early summer, held a level between 91 and 128 per hour of trawling from August to November, peaked at 182 in December, declined to 101 in January, and continued to decline to the low in March and April (table 8).

Bumpers contributed less than 1 percent of the monthly average catches in March and April; this percentage increased in May, maintained a level between 4.0 and 6.7 percent (peak in December) from June to January, and declined abruptly in February to the low in March and April (table 8).

CYNOSCIION REGALIS.--The yearly average catch of gray seatrout (Sciaenidae) for the region was 63 per hour of trawling, representing 3.9 percent of the total catch. They were most abundant in South Carolina Outside at 141 per hour of trawling and 6.8 percent of the catch; next in Georgia Inside, 65 per hour of trawling and 4.3 percent of the catch; then Georgia Outside, 49 per hour of trawling and 3.6 percent of the catch; and least numerous in Florida Outside, 46 per hour of trawling and 1.7 percent of the catch.

Only 13 gray seatrout were taken per hour of trawling in March; the number generally increased during spring and early summer, ranged from 71 to 95 in August to December, peaked at 133 in January, and declined abruptly to the low in March (table 8).

The species contributed only 1.4 percent of the monthly average catch in March, fluctuated between 2.6 and 5.9 percent from April to December, peaked at 6.9 percent in January, and declined to the low in March (table 8).

ETROPUS CROSSOTUS.--The yearly average catch of fringed flounder (Bothidae) for the region was 49 per hour of trawling,

representing 3.0 percent of the total catch. They were most numerous in Georgia Inside at 74 per hour of trawling and 4.9 percent of the catch; next in Georgia Outside, 30 per hour of trawling and 2.2 percent of the catch; then Florida Outside, 19 per hour of trawling and 0.7 percent of the catch; and least abundant in South Carolina Outside, 15 per hour of trawling and 0.7 percent of the catch.

Only 2 fringed flounders were taken per hour of trawling in June; the number increased steadily during summer and early fall, rose sharply in October and November to 78 and 122, peaked at 168 in December, declined sharply to 86 in January, and continued to decline to the low in June (table 8).

The species contributed less than 1 percent of the monthly average catches from May to August; this percentage increased in September, and was maintained at 3.5 to 6.2 percent (peak in December) from October to April (table 8).

SOUTH CAROLINA OUTSIDE

Figure 4 shows the monthly average number of fish per hour of trawling for all species combined and for the family Sciaenidae. From a low of 555 fish per hour of trawling in April the number rose steadily through the summer to 2,882 to 3,338 during September and October and peaked at 3,571 to 3,693 in December and January (fig. 4). I do believe the relatively small number of fish captured in November (1,200 per hour of trawling) may be due to a sampling error. Number of fish taken declined abruptly in February and continued to decline to the low in April. The yearly average catch for all species combined was almost 2,100 fish per hour of trawling, of which over 1,700 were Sciaenidae--or more than 3 of every 4 fish taken.

Families

Five families of fishes (Sciaenidae, Clupeidae, Gadidae, Engraulidae, and Ariidae--in that order) were taken in greatest numbers in South Carolina and together contributed 1,955 of the 2,086 yearly average number per hour of trawling, and almost 94 percent of the yearly average catch.

Sciaenidae.--The yearly average catch of croakers for the area was 1,731 per hour of trawling, representing 82.9 percent of the total catch.

Only 267 and 233 sciaenids were taken per hour of trawling in March and April; the number increased rapidly during the spring and summer, to 3,008 and 2,470 in September and October, peaked at 3,383 and 3,206 in December and January, declined rapidly in February, and continued to decline to the low in March and April (fig. 4).

The sciaenids contributed 29 and 42 percent to the monthly average catches in March and April, 61 and 63 percent during May and June, and 87 to 94 percent from July to January; this contribution declined to 74 percent in February, and then dropped abruptly to the low in March and April (table 11). Except for March and April, sciaenids were taken throughout the year in greater numbers than all other families combined.

Clupeidae.--The yearly average catch of clupeids for the area was 73 per hour of trawling, representing 3.5 percent of the total catch.

Less than 6 clupeids were taken per hour of trawling from July to December; the number rose abruptly to a peak of 345 and 275 in January and February, decreased irregularly during the spring, and continued to the seasonal low that began in July (table 11).

The clupeids contributed from 0.3 to less than 0.1 percent of the monthly average catches from July to December, and 7.9 to 14.3 percent from January to June (except for April); the peak was in February (table 11).

Gadidae.--The yearly average catch of gadids for the area was 54 per hour of trawling, representing 2.6 percent of the total catch.

No gadids were captured from July to December, and only a few in January; the number increased sharply to 71 per hour of trawling in February, peaked at 305 and 208 in March and April, and fell abruptly to 1 or less in May and June, and none in July (table 11).

Gadids made up 0.1 percent of the monthly average catch in January, 3.7 percent in February, 32.6 and 37.5 percent in March and April, 0.1 percent in May and June, and were not taken in July to December (table 11).

Engraulidae.--The yearly average catch of engraulids for the area was 53 per hour of trawling, representing 2.5 percent of the total catch.

Only 1 to 12 were taken per hour of trawling from July to September; the number increased irregularly during the fall and winter, reached 72 in February, peaked at 235 in May, declined in June, and continued to decline to the low in July to September (table 11).

The engraulids contributed from less than 0.05 to 0.7 percent of the monthly average catches from July to September, increased generally to 1.6 to 3.7 percent during late fall and winter, peaked during the spring at 16.1 and 16.6 percent in March and May, declined to 11.2 percent in June, and continued to the low in July to September (table 11).

Ariidae.--The yearly average catch of sea catfish for the area was 44 per hour of trawling, representing 2.1 percent of the total catch.

No sea catfish were captured from December to March, and only a few were taken in April; the number per hour of trawling increased almost steadily from May through the summer,

peaked at 153 and 184 in September and October, and dropped abruptly to only 0.2 per hour of trawling in November (table 11).

Catfish contributed 1.2 to 2.3 percent of the monthly average catches in May and June, peaked at 4.6 to 6.4 percent in September and October, and dropped abruptly to only 0.2 in November (table 11).

Species

Six species of fishes (Stellifer lanceolatus, Leiostomus xanthurus, Micropogon undulatus, Cynoscion regalis, Menticirrhus spp., and Brevoortia spp.--in that order) were taken in greatest numbers and together contributed 1,743 of the 2,086 yearly average number of fish caught per hour of trawling, and over 83 percent of the yearly average catch for the South Carolina grounds.

STELLIFER LANCEOLATUS.--The yearly average catch of star drum for the area was 809 per hour of trawling, representing 38.8 percent of the total catch.

Only 89 were taken per hour of trawling in March; the number increased rapidly during late spring and early summer and exceeded 1,000 in July and August, peaked at 2,481 in September, declined to 1,638 in October, and generally continued to decline to the low in March (table 12).

The species contributed 7.5 to 21.2 percent of the monthly average catches from December to March (less than 10 percent except in January), 27.9 percent in April, 41 to 74 percent in May to November (peak in September--see table 12).

LEIOSTOMUS XANTHURUS.--The yearly average catch of spot for the area was 466 per hour of trawling, representing 22.3 percent of the total catch.

Numbers per hour of trawling were low in two periods--one in the fall and one in the spring. The monthly average catch per hour of trawling was 9 and 4 in September and October, 24 in November, peaked at 2,496 in December, declined to 1,457 and 1,096 in January and February, dropped sharply to 6 to 10 in March to May, increased to 47 in June, rose to a summer high of 138 in July, declined in August, and continued to decline to the fall low (table 12).

Spots made up only small percentages of the monthly average catches in two periods, fall and spring. They contributed only 0.3 and 0.2 percent in September and October and 1.9 in November, peaked at 69.9 percent in December, maintained a high level of 39.5 and 57.0 percent in January and February, fell to 0.6 to 1.9 percent from March to May, and made up 3.0 to 7.0 percent of the catch in June to August (table 12).

MICROPOGON UNDULATUS.--The yearly average catch of Atlantic croakers for the area was 152 per hour of trawling, representing 7.3 percent of the total catch.

Only 1.1 to 2.5 were taken per hour of trawling from February to April; the number increased in May and June to 11 to 17, maintained a general level of about 202 to 313 from July to September, peaked at 457 in October, declined to 201 and 161 in November and December, and continued to decline to the low in late winter and early spring (table 12).

The species contributed only 0.1 to 1.6 percent of the monthly average catches from January to June. It generally contributed about 14 to 17 percent of the catch from July to November, declined in December, and continued to decline to the low in January to June (table 12).

CYNOSCION REGALIS.--The yearly average catch of gray seatrout for the area was 141 per hour of trawling, representing 6.8 percent of the total catch.

Only 1.5 were taken per hour of trawling in March; the number rose steadily through the spring, summer, and fall, reached 186 to 221 in November and December, peaked at 698 in January, and declined sharply in February to the low in March (table 12).

The species contributed 0.2 to 1.7 percent of the monthly average catches from February to April, 2.2 to 4.6 percent in May to September, and 6.2 to 18.9 percent from October to January (peak in January--see table 12.)

MENTICIRRHUS spp.(mostly M. AMERICANUS).--The yearly average catch of king whiting for the area was 100 per hour of trawling, representing 4.8 percent of the total catch.

About 10 king whiting were taken per hour of trawling in June; the numbers fluctuated between 52 and 163 from July to March (peak in September), dropped to 45 in April, and continued to decline to the low in June (table 12).

The species contributed only 1.5 and 1.0 percent of the monthly average catches in May and June; from July to January it contributed fluctuating percentages of 2.9 to 6.8, peaked at 16.6 in March, and declined abruptly in April to the low in May and June (table 12).

BREVOORTIA spp.(mostly B. TYRANNUS).--The yearly average catch of menhaden in the South Carolina area was 73 per hour of trawling, representing 3.5 percent of the total catch.

Only 0.3 to 1.6 menhaden were taken per hour of trawling from September to November; the number increased in December, peaked at 345 and 275 in January and February, fluctuated between 75 and 114 from March to June, declined in July, and continued to drop to the low in September to November (table 12).

The species contributed only 0.1 to 0.3 percent of the monthly average catches from July to December, but made up 7.9 to 14.3 percent from January to June (except for April); the peak was in February (table 12).

GEORGIA OUTSIDE

Figure 5 shows the monthly average number of fish per hour of trawling for all species combined and for the family Sciaenidae. From a low of 591 and 685 fish per hour of trawling in March and April the number increased during late spring and summer to a peak at 2,667 in September, and remained at the high level of 1,953 to 2,259 from October to December. The number taken dropped sharply in January and continued to decline to the low in March and April. The yearly average catch for all species combined was nearly 1,400 fish per hour of trawling, of which about 1,000 were Sciaenidae--or over 2 of every 3 fish taken.

Families

Five families of fishes (Sciaenidae, Carangidae, Ariidae, Clupeidae, and Bothidae--in that order) were taken in largest numbers in the Georgia Outside area and together contributed 1,226 of the 1,391 yearly average number per hour of trawling, and 88.0 percent of the yearly average catch.

Sciaenidae.--The yearly average catch of croakers for the area was 983 per hour of trawling, representing 70.6 percent of the total catch.

Only 319 sciaenids were taken per hour of trawling in March; the number increased slowly but steadily over the spring and summer to 951 in August, peaked at 1,907 in September, maintained a high level of 1,550 to 1,764 from October to December, declined to 811 in January, and continued to decline to the low in March (fig. 5).

The sciaenids contributed least to the monthly average catches in February and March at 55.5 and 54.2 percent; from April to January the family reached and maintained a level of 62.2 to 80.7 percent of the catch (peak in October), and then declined abruptly to the low in February and March (table 11). During every month of the year sciaenids were taken in greater numbers than were all other families combined.

Carangidae.--The yearly average catch of carangids for the area was 111 per hour of trawling, representing 8.0 percent of the total catch.

About 2 carangids were taken per hour of trawling in April; the number increased rapidly in late spring and summer to 186 in August and the peak of 321 in September, declined irregularly during late fall and early winter but

maintained a value of 121 to 192 from November to January, declined sharply in February, and continued to decline to the low in April (table 11).

The carangids contributed 0.2 percent of the monthly average catch in April, 2.8 in May, and 11.4 to 15.8 percent in June to September; the percentage was between 3.8 and 9.8 in October to February, and continued to decline to the low in April (table 11).

Ariidae.--The yearly average catch of sea catfish for the area was 47 per hour of trawling, representing 3.4 percent of the total catch.

No sea catfish were captured in February and only 0.2 per hour of trawling in March; the number rose to about 22 in April and generally continued to rise during the late spring and summer, peaked at 171 in September, was 97 to 113 in October and November, declined abruptly to 3.5 and 2.0 in December and January, and to none in February (table 11).

The ariids contributed only 0.2 percent or less of the monthly average catches in December, January, and March (nil in February), and generally contributed about 3 to 6.5 percent of the catch from April to November (peak in September--see table 11).

Clupeidae.--The yearly average catch of clupeids for the area was 44 per hour of trawling, representing 3.1 percent of the total catch.

Only 0.4 to 1 clupeid was taken per hour of trawling from August to November; the number rose in December and January, peaked at 224 in February, and generally declined during spring and early summer to the low in August to November (table 11).

The clupeids contributed from less than 0.05 percent to 0.6 percent of the monthly average catches from July to December; they were most abundant from January to March at 8.7 to 22.0 percent of the catch (peak in February) and were captured in moderate abundance in spring and early summer (table 11).

Bothidae.--The yearly average catch of flounders for the area was 40 per hour of trawling, representing 2.9 percent of the total catch.

About 8 to 35 bothids were taken per hour of trawling from March to September; the number increased steadily in the fall and early winter, peaked at 93 in January, and declined rapidly in February to the low in March to September (table 11).

The bothids contributed only 0.6 and 1.0 percent of the monthly average catches in August and September; their peak contributions were 7.5 and 5.0 percent in January and February (table 11). During the remaining months they made up 1.6 to 3.9 percent of the catch.

Species

Six species of fishes (Stellifer lanceolatus, Micropogon undulatus, Leiostomus xanthurus, Menticirrhus spp., Chloroscombrus chrysurus, and Cynoscion regalis--in that order) were captured in greatest numbers and together contributed 1,020 of the 1,391 yearly average number per hour of trawling, or 73.3 percent of the yearly average catch for the Georgia Outside area.

STELLIFER LANCEOLATUS.--The yearly average catch of star drum for the area was 528 per hour of trawling, representing 38.0 percent of the total catch.

About 119 were taken per hour of trawling in March; the number increased during spring and summer, reached 805 to 1,090 during the fall, peaked at 1,117 in December, declined abruptly in January and continued to decline to the low in March (table 12).

The species contributed 13.6 and 20.2 percent of the monthly average catches in February and March, 28.7 to 55.8 percent in April to January (peak in October--see table 12).

MICROPOGON UNDULATUS.--The yearly average catch of Atlantic croakers for the area was 140 per hour of trawling, representing 10.1 percent of the total catch.

Only 1 to 3 were taken per hour of trawling from February to April; the number increased rapidly over late spring and summer to 258 by August, peaked at 676 in September, declined abruptly to 202 in October, and generally continued to decline to the low in February to April (table 12).

Croakers contributed 0.2 to 0.5 percent of the monthly average catches from February to April, 12.2 to 25.4 percent from June to September (peak in September). They declined rapidly in late fall and winter to the low in February to April (table 12).

LEIOSTOMUS XANTHURUS.--The yearly average catch of spot for the area was 109 per hour of trawling, representing 7.8 percent of the total catch.

About 14 to 58 spots were taken per hour of trawling from June to November; numbers taken were greatest during winter and early spring, and the peak was 287 in December (table 12).

Spots contributed 0.9 to 4.4 percent of the monthly average catches from June to November, 12.7 and 7.1 percent during December and January, and their highest percentage during late winter and spring with a peak of 25.8 and 26.6 percent in February and March (table 12).

MENTICIRRHUS spp. (mostly M. AMERICANUS).--The yearly average catch of king whiting for the area was 99 per hour of

trawling, representing 7.1 percent of the total catch.

About 17 to 22 were taken per hour of trawling in May and June; numbers increased steadily over the summer and early fall, were 175 to 230 from October to January (peak in November), and generally declined during the late winter and early spring to the low in May and June (table 12).

The species contributed 2.3 to 4.1 percent of the monthly average catches from May to September and 7.8 to 16.3 percent from October to April; the peak was in January (table 12).

CHLOROSCOMBRUS CHRYSURUS.--The yearly average catch of bumpers for the area was 93 per hour of trawling, representing 6.7 percent of the total catch.

Only one bumper was taken per hour of trawling in March; the number increased steadily in late spring and summer to peak at 306 in September, was 36 to 120 during late fall and winter, and continued to decline to the low in April (table 12).

Bumpers contributed 0.1 percent of the monthly average catch in April; 10.7 to 15.3 percent from June to September (peak in June), were generally about 3.0 to 9.7 percent from October to February, and declined rapidly to the low in April (table 12).

CYNOSCION REGALIS.--The yearly average catch of gray seatrout for the area was 49 per hour of trawling, representing 3.6 percent of the total catch.

Six were taken per hour of trawling in March; the numbers generally increased over the spring and summer, maintained a level of about 48 to 70 from July to November, peaked at 120 in December, and declined rapidly in January and February to the low in March (table 12).

Gray seatrout generally contributed their lowest percentage of the monthly average catches--1.1 to 4.4--from May to November; their largest contribution was generally in December to April, and the peak was 6.5 in April (table 12).

GEORGIA INSIDE

Figure 5 shows the monthly average number of fish per hour of trawling for all species combined and for the family Sciaenidae. From a low of nearly 500 fish per hour of trawling in February, the number increased in the spring, summer, and early fall to a peak of over 2,700 in November and December. The secondary peaks of over 1,400 in April and 2,100 in July probably resulted from movement of fish between the inside and outside waters. The numbers taken decreased sharply in January and continued to the low in February. The yearly average for all species combined

was over 1,500 fish per hour of trawling, of which over 1,000 were sciaenids--or 2 of every 3 fish taken.

Families

Five families of fishes (Sciaenidae, Ariidae, Bothidae, Soleidae and Cynoglossidae combined, and Engraulidae--in that order) were taken in largest numbers in the Georgia Inside area and together contributed 1,361 of the 1,503 yearly average number per hour of trawling, and 90.5 percent of the yearly average catch.

Sciaenidae.--The yearly average catch of croakers for the area was 1,096 per hour of trawling, representing 72.9 percent of the total catch.

Only 212 sciaenids were taken per hour of trawling in February; the number generally increased over the spring and early summer, ranged from 1,085 to 1,872 in July to October, peaked at 2,078 and 2,011 in November and December, declined sharply to 1,128 in January, and fell to the low in February (table 11).

The sciaenids contributed least--42.6 percent--to the monthly average catch in February, maintained a level of 62.0 to 71.7 percent from March to June, peaked at 86.5 in July, contributed from 72.5 to 77.0 percent from August to January, and declined sharply to the low in February (table 11).

Ariidae.--The yearly average catch of sea catfish for the area was 95 per hour of trawling, representing 6.3 percent of the total catch.

Less than 1 catfish was taken per hour of trawling from December to March; the number rose sharply in April, was 110 to 160 from May to July, peaked at 256 in August, began to decline in September, and continued declining to the low from December to March (table 11).

Ariids contributed only 0.05 to 0.6 percent of the monthly average catches from November to March. This percentage increased sharply in April, generally remained between 10.1 and 13.9 percent from May to September, declined abruptly in October, and continued declining to the low from November to March (table 11).

Bothidae.--The yearly average catch of flounders for the area was 84 per hour of trawling, representing 5.5 percent of the total catch.

About 10 to 22 flounders were taken per hour of trawling from May to August; the number rose steadily during the fall to 281 in November and a peak of 424 in December, declined abruptly in January but ranged between 71 and 135 from January to April, and then dropped abruptly to the low in May to August (table 11).

The bothids contributed 0.9 to 2.6 percent of the monthly average catches from May to September and 7.7 to 15.8 percent from October to April (peak in December--see table 11).

Soleidae and Cynoglossidae (combined).--The yearly average catch of soles and tonguefishes for the area was 43 per hour of trawling, representing 2.9 percent of the total catch.

Only 6 to 10 were taken per hour of trawling in February and March. The number generally increased in spring, summer, and fall, to a peak of 90 in December; dropped abruptly in January; and continued to decline to the low in February and March (table 11).

The soles and tonguefishes contributed 1.0 to 1.7 percent of the monthly average catches from January to March and 2.0 to 4.6 percent in April to December; the peak was in August (table 11).

Engraulidae.--The yearly average catch of anchovies for the area was 43 per hour of trawling, representing 2.9 percent of the total catch.

Only 6 to 9 anchovies were taken per hour of trawling in July and August; the number increased sharply to 96 in October, peaked at 176 in November, declined sharply in December, fluctuated between 31 and 72 (highest in April) from December to June, and declined abruptly to the low in July and August (table 11).

Anchovies contributed only 0.4 percent of the monthly average catches in July and August; peak contributions of 5.9 and 6.5 percent were in October and November; the percentages fluctuated between 2.4 to 5.0 percent from December to June (table 11).

Species

Six species of fish (Stellifer lanceolatus, Micropogon undulatus, Leiostomus xanthurus, Etropus crossotus, Cynoscion regalis, and Galeichthys felis--in that order) were captured in greatest numbers in the Georgia Inside area and together contributed 1,180 of the 1,503 yearly average number per hour of trawling, and 78.5 percent of the yearly average catch.

STELLIFER LANCEOLATUS.--The yearly average catch of star drum for the area was 735 per hour of trawling, representing 48.9 percent of the total catch.

Only 139 star drum were taken per hour of trawling in February; the number increased during the spring and early summer (reaching a level of 265 to 485 from March to June), fluctuated between 848 and 1,132 from July to October, peaked at 1,894 and 1,823 in November and December, declined sharply in January, and continued to decline to the low in February (table 12).

The species contributed 28.0 to 32.8 percent of the monthly average catches from February

to April; the percentage fluctuated between about 37 and 70 from May to January, with the peak in November (table 12).

MICROPOGON UNDULATUS.--The yearly average catch of Atlantic croaker for the area was 129 per hour of trawling, representing 8.6 percent of the total catch.

About 3 to 15 croakers were taken per hour of trawling from December to March; the number rose in April and May, remained between 310 and 450 from June to August (peak in July), declined abruptly to 111 in September, and continued to decline to the low in December to March (table 12).

The species contributed 0.1 to 1.0 percent of the monthly average catches from November to March; this percentage increased in April and May, peaked at 23.4 and 20.8 in June and July, declined to 17.0 in August, and continued to decline to the low in November to March (table 12).

LEIOSTOMUS XANTHURUS.--The yearly average catch of spot for the area was 119 per hour of trawling, representing 8.0 percent of the total catch.

About 20 to 38 spot were taken per hour of trawling from August to December; peak abundance of 264 and 376 was in March and April, and a secondary peak of 196 was in July (table 12).

The species contributed only 1.0 to 1.7 percent of the monthly average catches from August to December; its greatest contributions were 25.6 and 25.9 percent in March and April (table 12).

ETROPUS CROSSOTUS.--The yearly average catch of fringed flounder for the area was 74 per hour of trawling, representing 4.9 percent of the total catch.

Only 2 fringed flounders were taken per hour of trawling in June; the number increased over the summer and fall to 278 in November, peaked at 420 in December, decreased sharply to 131 in January, and generally declined in late winter and spring to the low in June (table 12).

The species contributed only 0.2 to 0.9 percent of the monthly average catches from May to August; the percentage increased in September and ranged from 6.3 to 15.7 percent in October to April; the peak was in December (table 12).

CYNOSCION REGALIS.--The yearly average catch of gray seatrout for the area was 65 per hour of trawling, representing 4.3 percent of the total catch.

Ten to 15 gray seatrout were taken per hour of trawling in February and March, about 38 to 117 in April to January (the peak of about 72 to 117 extended from July to October--it was highest in August), and 42 to 52 from November to January (table 12).

The species contributed 1.5 to 2.0 percent of the monthly average catches from November to March (except for January at 3.3) and 3.5 to 6.4 percent from April to October; the peak was in August (table 12).

GALEICHTHYS FELIS.--The yearly average catch of sea catfish for the area was 57 per hour of trawling, representing 3.8 percent of the total catch.

No sea catfish were taken in December, and only 0.8 or less per hour of trawling from January to March; the number rose abruptly to 52 in April, generally increased over late spring and early summer, peaked at 152 in August, declined abruptly to 40 in September, and continued to decline to the low beginning in December (table 12).

The species contributed less than 0.3 percent of the monthly average catches from November to March (none in December); from May to August (except in July) the species contributed 8.0 to 8.6 percent, declined sharply in September, and continued to decline to the low in November to March (table 12).

GEORGIA COMBINED

Figure 5 shows the monthly average number of fish per hour of trawling for all species combined and for the family Sciaenidae. From a low of about 800 to 900 fish per hour of trawling in February and March the number increased steadily through the spring and early summer, reached about 1,600 to 1,800 during July to October, peaked in November and December at about 2,400, declined sharply in January to about 1,400, and continued to decline to the low in February and March. The yearly average catch for all species combined was over 1,400 fish per hour of trawling, of which over 1,000 were sciaenids--or about 2 of every 3 fish caught.

The combining of catches from Georgia Outside and Georgia Inside tends to stabilize the seasonal changes in average numbers of fish per hour of trawling (fig. 5). Lowest catches are in late winter and early spring; numbers increase steadily over the late spring, summer, and early fall; and peak catches are during late fall and early winter. This general pattern exists in the two basic Georgia areas but is somewhat obscured. These differences may be explained by the considerable movement of fish between inside and outside grounds.

Detailed discussions of families and species are not made for the Georgia Combined area since this account was given for the two basic areas (Georgia Outside and Georgia Inside). Details of the Georgia combined data are in tables 1, 6, 9, 10, 11, and 12, and figure 5.

FLORIDA OUTSIDE

Figure 4 shows the monthly average number of fish per hour of trawling for all species combined and for the family Sciaenidae. From a low of 261 and 369 fish per hour of trawling in May and June, the number increased sharply through the summer. It reached 4,392 by September, peaked at 5,637 and 5,470 in October and November, began to decline in December but maintained a high level of 3,756 and 3,376 in December and January, declined to 1,303 to 1,746 during February to April, and then dropped abruptly to the low in May and June. The yearly average catch for all species combined was over 2,700 fish per hour of trawling, of which nearly 2,000 were sciaenids--or more than 2 of every 3 fish captured.

Families

Three families of fishes (Sciaenidae, Carangidae, and Ariidae--in that order) were taken in largest numbers in the Florida area and together contributed 2,504 of the 2,725 yearly average number per hour of trawling, and 92.1 percent of the yearly average catch.

Sciaenidae.--The yearly average catch of croakers for the area was 1,962 per hour of trawling, representing 72.0 percent of the total catch.

Only 135 and 206 sciaenids were taken per hour of trawling in May and June; the number increased sharply in the summer, reaching 1,602 in August, 3,063 in September, peaked at 4,130 and 4,211 in October and November, declined to 1,824 and 2,569 in December and January, maintained a fluctuating level of 1,078 to 1,421 from February to April, and declined abruptly to the low in May and June (figure 4; table 11).

The sciaenids contributed least to the monthly average catches in May and June at 51.9 and 55.9 percent and in December at 48.6 percent; from July to April (except December) they contributed about 68 to 83 percent of the catch; thus throughout the year (except in December) sciaenids were captured in greater numbers than all other families of fish combined (table 11).

Carangidae.--The yearly average catch of carangids for the area was 388 per hour of trawling, representing 14.4 percent of the total catch.

Only 14 carangids were taken per hour of trawling in February; the number increased steadily over the spring, summer, and fall to 953 and 732 in October and November, peaked at 1,555 in December, dropped abruptly to 476 in January, and to the low in February (table 11).

The carangids contributed only 1.0 percent of the monthly average catch in February; this

percentage increased in April and reached 28.4 to 24.6 percent in May and June, dropped abruptly to 5.8 to 7.9 from July to September, increased to 16.9 to 13.4 in October and November, peaked at 41.4 percent in December, declined sharply to 14.1 percent in January and fell to the low in February (table 11).

Ariidae.--The yearly average catch of sea catfish for the area was 153 per hour of trawling, representing 5.7 percent of the total catch.

Less than 1 catfish was taken per hour of trawling in May; the number rose slowly over the summer, peaked abruptly at 716 in September, declined to 237 and 227 in October and November, and generally declined over the winter and early spring to the low in May (table 11).

The family contributed only 0.2 to 0.7 percent of the monthly average catches from May to July; the peak contribution of 18.2 percent was in September; the percentage held at about 4 percent in October, November, and January, and declined from February to April to the low in May (table 11).

Species

Eight species of fish (Stellifer lanceolatus, Micropogon undulatus, Chloroscombrus chrysurus, Cynoscion nothus, Menticirrhus spp., Leiostomus xanthurus, Bagre marinus, and Vomer setapinnis--in that order) were captured in greatest numbers and together contributed 2,374 of the 2,725 yearly average number per hour of trawling, and 87.2 percent of the yearly average catch.

STELLIFER LANCEOLATUS.--The yearly average catch of star drum for the Florida area was 774 per hour of trawling, representing 28.4 percent of the total catch.

No star drum were captured in May and only 13 per hour of trawling in June; the number increased rapidly during the summer to 1,212 in September, peaked at 2,169 in October, declined to 1,642 in November and 1,482 in January, and continued to decline in late winter and early spring to the low in May (table 12).

The species was not taken in May, but contributed 3.6 percent of the monthly average catch in June, and 16.4 and 15.4 percent in July and August; it contributed 27.0 to 38.5 percent of the monthly average catches in September to November, 42 to 53 percent January to March (peak in March), and then declined abruptly to the low in May (table 12).

MICROPOGON UNDULATUS.--The yearly average catch of Atlantic croaker for the area was 476 per hour of trawling, representing 17.5 percent of the total catch.

Only 16 and 20 croakers were taken per hour of trawling in March and April; the number generally increased during late spring and

summer to 1,018 in September, peaked at 1,198 in November, declined abruptly to 587 in December, and continued the decline to the low in March and April (table 12).

Croakers contributed 1.0 to 1.7 percent of the monthly average catches from February to April, 11.7 to 39.8 percent from May to December (peak in July and August), declined abruptly in January to the low in February to April (table 12).

CHLOROSCOMBRUS CHRYSURUS.--The yearly average catch of bumper was 274 per hour of trawling, representing 10.1 percent of the total catch.

Only 4 bumpers were taken per hour of trawling in February; the number generally increased over the spring, summer, and fall to 624 and 458 in October and November, peaked at 1,107 in December, declined abruptly to 331 in January, and continued its decline to the low in February (table 12).

Bumpers contributed only 0.3 to 0.9 percent of the monthly average catches in February and March; they had two widely separated peaks of contributions--one in May and June at 27.8 and 21.6 percent and the other in December at 29.5 percent; they represented 5.7 to 11.1 percent of the catch from July to November and 9.8 percent in January (table 12).

CYNOSCIION NOTHUS.--The yearly average catch of white seatrout for the area was 262 per hour of trawling, representing 9.6 percent of the total catch.

Only 23 white seatrout were taken per hour of trawling in May; the number generally increased over late spring, summer, and fall, to 492 in November, peaked at 611 in December, and generally declined through the winter; a second peak of 500 per hour of trawling occurred in April, followed by an abrupt decline to the low in May (table 12).

Percentages of the monthly average catches contributed by white seatrout fluctuated from 4.5 to 9.7 from July to November, and ranged from 6.3 to 38.4 percent from December to June, with isolated peaks at 16.3 in December, 38.4 in April (the highest), and 21.7 in June (table 12).

MENTICIRRHUS spp..--The yearly average catch of king whiting for the area was 198 per hour of trawling, representing 7.3 percent of the total catch.

Only 1 to 3 king whiting were taken per hour of trawling in May and June; the number increased over the summer to 286 in September, peaked at 754 in October, declined to 448 in November, continued to decline over the winter, displayed a secondary peak of 248 in April, and dropped abruptly to the low in May and June (table 12).

The species contributed only 0.4 percent of the monthly average catch in June; the percentage fluctuated between 2.8 and 9.1 from July to

March (except October at 13.4 percent); the peak contribution was in April at 19.1 percent (table 12).

LEIOSTOMUS XANTHURUS.--The yearly average catch of spot for the area was 156 per hour of trawling, representing 5.7 percent of the total catch.

Only 9 spots were taken per hour of trawling in May; the number increased over the summer and from July to November fluctuated between 123 and 214, peaked at 218 and 230 in January and February, declined sharply in March, and continued declining to the low in May (table 12).

Spots contributed only 1.5 to 3.8 percent of the monthly average catches in September to December; two widely separated peaks of contribution occurred--one at 15.6 percent in February and another at 20.6 percent in July (table 12).

BAGRE MARINUS.--The yearly average catch of gafftopsail catfish was 121 per hour of trawling, representing 4.5 percent of the total catch.

Only 0.3 to 2 gafftopsail catfish were taken per hour of trawling in May to August; the number peaked abruptly at 692 in September, fluctuated between 80 and 186 from October to January, and declined abruptly to about 4 to 19 in February to April and to the low in May to August (table 12).

The species contributed only 0.1 to 1.1 percent of the monthly average catches from February to August, a peak contribution of 15.4 percent in September, and 2.1 to 4.3 percent in October to January (table 12).

VOMER SETAPINNUS.--The yearly average catch of moonfish was 110 per hour of trawling, representing 4.1 percent of the total catch.

Only one moonfish was taken per hour of trawling in July; the number increased steadily

over late summer and fall, peaked at 443 in December, declined abruptly to 131 in January, and generally continued to decline to the low in July (table 12).

Moonfish contributed only 0.1 percent of the monthly average catch in July, 3.9 to 11.8 percent in October to January (peak in December), and 0.3 to 2.6 percent from February to June (table 12).

SOUTH CAROLINA, GEORGIA, AND FLORIDA OUTSIDE COMBINED

Table 7 shows the monthly average numbers of fish per hour of trawling (all species combined) in the outside grounds. From a low of about 700 to 900 fish per hour of trawling from March to June the number taken increased rapidly to 1,217 and 1,539 in July and August, peaked at 3,158 in September, maintained a high level of 2,173 to 2,795 from October to January, declined sharply to 1,192 in February, and continued to the low in March to June. The yearly average catch for all species combined was 1,752 fish per hour of trawling, of which 1,279 were sciaenids--or about 3 of every 4 fish caught.

Families and species data for the combined outside category are not discussed, as this description was given for the three basic areas (South Carolina Outside, Georgia Outside, and Florida Outside). Details of the data for this combination are in tables 1, 7, 9, and 10.

LITERATURE CITED

ANDERSON, W. W., M. J. LINDNER, and J. E. KING.

1949. The shrimp fishery of the southern United States. Fish Wildl. Serv., Commer. Fish Rev. 11(2): 1-17.

Table 1.--Number of hours of trawling by month in all basic areas and certain combinations of areas, 1931-35

Month	South Carolina Outside	Georgia Inside	Georgia Outside	Georgia Combined	Florida Outside	South Carolina, Georgia, and Florida Outside Combined	All areas combined
Jan.	5.50	19.75	20.00	39.75	8.50	34.00	53.75
Feb.	5.50	26.25	38.75	65.00	9.50	53.75	80.00
March	5.50	42.50	26.00	68.50	6.00	37.50	80.00
April	6.50	58.00	25.25	83.25	6.50	38.25	96.25
May	3.00	49.75	22.00	71.75	3.00	28.00	77.75
June	3.00	41.50	18.00	59.50	3.00	24.00	65.50
July	8.00	31.00	30.00	61.00	14.00	52.00	83.00
Aug.	5.00	46.00	32.00	78.00	11.00	48.00	94.00
Sept.	6.00	53.00	29.25	82.25	10.00	45.25	98.25
Oct.	5.00	33.00	27.50	60.50	7.00	39.50	72.50
Nov.	5.00	15.25	19.00	34.25	7.50	31.50	46.75
Dec.	5.50	19.25	26.50	45.75	8.50	40.50	59.75
Total	63.50	435.25	314.25	749.50	94.50	472.25	907.50

Table 2.--Fish taken by trawling, South Carolina Outside, M/V Launch 58, 1933-35, catch per unit of effort (75-foot shrimp trawl at 2 to 3 knots) by months for all years and stations combined

[Upper figure, number of fish per hour of hauling; middle figure, percent of total catch; and lower figure, total number of fish; asterisk indicates value of less than 0.05]

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
<u>Carcharhinus</u> spp.	-	-	-	-	-	0.3 * 1	-	2.0 0.1 10	-	-	-	-	0.2 * 11
<u>Scoliodon terraenovae</u>	-	-	-	-	-	-	1.5 0.1 12	-	-	0.2 * 1	-	-	0.2 * 13
<u>Sphyrna tiburo</u>	-	-	-	-	0.3 * 1	-	0.5 * 4	2.4 0.1 12	-	0.4 * 2	0.4 * 2	-	0.3 * 21
<u>Sphyrna zygaena</u>	-	-	-	-	-	1.0 0.1 3	0.3 * 2	-	-	-	-	-	0.1 * 5
<u>Pristis pectinatus</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Rhinobatos lentiginosus</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Torpedo nobiliana</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Raja eglanteria</u>	5.8 0.2 32	4.5 0.2 25	5.3 0.6 29	3.7 0.7 24	-	-	1.1 0.1 9	-	0.7 * 4	5.6 0.2 28	2.4 0.2 12	5.1 0.1 28	3.0 0.1 191
<u>Dasyatis americana</u>	-	0.4 * 2	-	14.5 2.6 94	-	1.3 0.1 4	4.3 0.2 34	0.2 * 1	0.3 * 2	-	0.8 0.1 4	-	2.2 0.1 141
<u>Dasyatis centroura</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Dasyatis sabina</u>	1.5 * 8	-	1.1 0.1 6	1.2 0.2 8	-	-	-	-	2.7 0.1 16	2.4 0.1 12	4.0 0.3 20	3.5 0.1 19	1.4 0.1 89
<u>Gymnura micrura</u>	0.7 * 4	-	-	0.8 0.1 5	-	0.7 0.1 2	3.6 0.2 29	2.0 0.1 10	2.0 0.1 12	4.4 0.2 22	1.6 0.1 8	0.2 * 1	0.5 0.1 93
<u>Aetobatus narinari</u>	-	-	-	-	-	-	-	-	-	-	0.2 * 1	0.2 * 1	* * 2
<u>Rhinoptera bonasus</u>	-	-	-	0.2 * 1	-	0.3 * 1	-	-	-	-	-	-	* * 2
<u>Acipenser oxyrinchus</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Lepisosteus osseus</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Brevoortia</u> spp. (<u>tyrannus</u> and <u>smithi</u>)	345.1 9.3 1,898	275.1 14.3 1,513	75.8 8.1 417	9.2 1.7 60	114.7 7.9 344	101.7 9.4 305	5.8 0.3 46	2.4 0.1 12	0.3 * 2	1.6 0.1 8	1.2 0.1 6	3.3 0.1 18	72.9 3.5 4,629
<u>Opisthonema oglinum</u>	-	-	-	-	-	2.7 0.3 8	-	0.4 * 2	-	-	-	-	0.2 * 10
All other genera and species of herrings	-	0.4 * 2	-	-	-	-	-	-	-	-	-	-	* * 2
<u>Anchoa</u> spp. (largely <u>mitchilli</u> and <u>bepsetus</u>)	23.1 0.6 127	72.0 3.7 396	155.5 16.6 855	13.8 2.5 90	235.0 16.1 705	121.0 11.2 363	8.3 0.4 66	12.2 0.7 61	1.3 * 8	47.2 1.6 236	30.8 2.5 154	56.0 1.6 308	53.1 2.5 3,369
<u>Synodus foetens</u>	-	-	-	-	-	-	-	-	-	-	-	0.2 * 1	* * 1
<u>Trachinocephalus myops</u>	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 2.--Continued

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
<u>Bagre marinus</u>	-	-	-	-	16.7 1.1 50	24.7 2.3 74	15.8 0.8 126	19.6 1.1 98	104.0 3.1 624	168.8 5.9 844	0.2 * 1	-	28.6 1.4 1,817
<u>Galeichthys felis</u>	-	-	-	1.4 0.5 9	1.7 0.1 5	-	66.0 3.3 528	15.6 0.9 78	49.0 1.5 294	15.6 0.5 78	-	-	15.6 0.7 992
<u>Ophichthus</u> spp.	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Urophycis</u> spp.	5.5 0.1 19	71.6 3.7 394	305.3 32.6 1,679	208.5 37.5 1,355	1.0 0.1 3	1.7 0.1 2	-	-	-	-	-	-	54.3 2.6 3,452
<u>Fistularia tabacaria</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Hippocampus</u> spp.	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Syngnathus</u> spp.	-	0.2 * 1	-	-	-	-	-	-	-	-	-	-	* * 1
<u>Centropristis striatus</u>	-	-	-	-	-	-	-	-	-	0.4 * 2	-	-	* * 2
<u>Centropristis philadelphicus</u>	0.4 * 2	-	-	-	-	-	-	-	-	0.8 * 4	0.2 * 1	1.5 * 8	0.2 * 15
<u>Diplectrum formosum</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Lobotes surinamensis</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Pomatomus saltatrix</u>	-	-	-	-	-	2.0 0.2 6	-	-	-	-	0.2 * 1	0.7 * 4	0.2 * 11
<u>Rachycentron canadum</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Caranx crysos</u>	-	-	-	-	-	-	3.1 0.2 25	30.4 1.7 152	10.0 0.3 60	-	-	-	3.7 0.2 237
<u>Caranx</u> spp.	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Chloroscombrus chrysurus</u>	-	-	-	-	-	6.0 0.6 18	46.5 2.3 372	37.4 2.1 187	4.2 0.1 25	20.0 0.7 100	6.8 0.6 34	-	11.6 0.6 736
<u>Decapterus punctatus</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Selene vomer</u>	2.9 0.1 16	-	-	-	-	-	1.3 0.1 10	14.4 0.8 72	0.3 * 2	-	2.4 0.2 12	-	1.8 0.1 112
<u>Trachinotus</u> spp.	-	-	-	-	0.3 * 1	-	-	1.6 0.1 8	-	-	-	-	0.1 * 9
<u>Trachurus lathami</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Vomer setapinnis</u>	1.1 * 6	-	-	-	-	1.0 0.1 3	0.5 * 4	6.4 0.4 32	2.7 0.1 16	18.4 0.6 92	4.4 0.4 22	7.3 0.2 40	3.4 0.2 215
<u>Eucinostomus</u> spp.	-	-	-	-	-	-	-	0.6 * 3	-	-	-	0.4 * 2	0.1 * 5

Table 2.--Continued

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
<u>Haemulon aurolineatum</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Orthopristis chrysopterus</u>	5.8 0.2 32	-	-	-	-	-	-	0.8 * 4	1.0 * 6	-	0.4 * 2	-	0.7 * 44
<u>Bairdiella chrysura</u>	19.3 0.5 106	19.3 1.0 106	0.5 * 3	1.4 0.3 9	11.3 0.8 34	-	-	-	1.3 * 8	8.8 0.3 44	26.2 2.1 131	57.8 1.6 318	12.0 0.6 759
<u>Cynoscion nebulosus</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Cynoscion nothus</u>	27.6 0.7 152	5.6 0.3 31	3.1 0.3 17	5.5 1.0 36	32.0 2.2 96	6.0 0.6 18	43.4 2.2 347	44.4 2.5 222	22.0 0.7 132	32.4 1.1 162	68.2 5.5 341	12.0 0.3 66	25.5 1.2 1,620
<u>Cynoscion regalis</u>	698.7 18.9 3,843	31.5 1.6 173	1.5 0.2 8	9.2 1.7 60	37.0 2.5 111	50.0 4.6 150	78.6 4.0 629	40.6 2.2 203	127.0 3.8 762	178.0 6.2 890	182.4 15.0 932	221.5 6.2 1,218	141.4 6.8 8,979
<u>Equetus acuminatus</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Equetus lanceolatus</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Larimus fasciatus</u>	46.0 1.2 253	3.5 0.2 19	9.8 1.1 54	3.7 0.7 24	1.7 0.1 5	12.0 1.1 36	46.3 2.3 370	33.6 1.9 168	2.0 0.1 12	20.8 0.7 104	42.8 3.5 214	37.1 1.0 204	23.0 1.1 1,463
<u>Leiostomus xanthurus</u>	1,457.1 39.5 8,015	1,096.0 57.0 6,028	6.0 0.6 33	10.5 1.9 68	9.0 0.6 27	47.0 4.4 141	138.5 7.0 1,108	53.6 3.0 268	9.3 0.3 56	4.8 0.2 24	24.0 1.9 120	2,492.0 69.9 13,728	466.4 22.3 29,616
<u>Menticirrhus</u> spp. (largely <u>americanus</u>)	120.2 3.3 661	129.8 6.8 714	155.5 16.6 855	45.4 8.2 295	22.3 1.5 67	10.7 1.0 32	111.3 5.6 890	52.0 2.9 260	163.3 4.9 980	129.6 4.5 648	68.4 5.5 342	119.6 3.4 658	100.8 4.8 6,402
<u>Micropogon undulatus</u>	55.4 1.5 305	1.6 0.1 9	1.1 0.2 6	2.5 0.4 16	11.0 0.8 33	17.0 1.6 51	288.3 14.5 2,306	313.2 17.3 1,566	202.3 6.1 1,214	457.6 15.9 2,288	201.6 16.3 1,008	161.1 4.5 886	152.6 7.3 9,688
<u>Pogonias cromis</u>	-	-	-	0.3 0.1 2	-	-	-	-	-	-	-	0.9 * 5	0.1 * 7
<u>Stellifer lanceolatus</u>	782.5 21.2 4,304	145.1 7.5 798	89.5 10.0 492	154.8 27.9 1,006	777.3 53.3 2,332	540.7 50.0 1,622	1,052.6 52.9 8,420	1,047.2 57.8 5,236	2,481.3 74.3 14,888	1,638.4 56.8 8,192	512.0 41.3 2,560	277.3 7.8 1,525	809.1 38.8 51,375
<u>Mullus auratus</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Lagodon rhomboides</u>	-	-	-	-	-	-	0.3 * 2	3.0 0.2 15	-	1.6 0.1 8	-	1.5 * 8	0.5 * 33
<u>Stenotomus</u> spp.	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Chaetodipterus faber</u>	-	-	-	-	-	-	1.4 * 11	19.2 1.1 96	14.0 0.4 84	4.0 0.1 20	0.2 * 1	-	3.3 0.2 212
<u>Xyrichtys</u> spp.	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Trichiurus lepturus</u>	10.5 0.3 58	28.4 1.5 156	1.5 0.2 8	4.2 0.8 27	13.0 0.9 39	15.7 1.5 47	19.8 1.0 158	25.2 1.4 126	4.0 0.1 24	14.4 0.5 72	2.0 0.2 10	1.5 * 8	11.5 0.6 733
<u>Scomberomorus maculatus</u>	-	-	-	-	-	-	-	-	0.7 * 4	0.8 * 4	-	-	0.1 * 8
<u>Gobionellus oceanicus</u>	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 2.--Continued

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
<u>Scorpaena</u> spp.	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Prionotus</u> spp.	9.8 0.3 54	0.4 * 2	2.2 0.2 12	0.6 0.1 4	-	-	4.1 0.2 32	2.2 0.1 11	2.0 0.1 12	6.4 0.2 32	0.8 0.1 4	0.7 * 4	2.7 0.1 167
<u>Astroscopus y-graecum</u>	-	-	-	-	0.7 0.1 2	-	-	-	-	-	-	-	* * 2
<u>Hypsoblennius</u> spp.	-	-	0.5 0.1 3	-	-	-	-	-	-	-	0.2 * 1	-	0.1 * 4
<u>Rissola marginata</u>	-	-	-	-	-	-	-	-	-	-	0.2 * 1	-	* * 1
<u>Peprilus alepidotus</u>	1.5 * 8	3.6 0.2 20	-	-	3.0 0.2 9	4.7 0.1 2	0.5 * 4	1.4 0.1 7	1.0 * 6	-	1.2 0.1 6	11.6 0.3 64	2.0 0.1 126
<u>Poronotus triacanthus</u>	2.7 0.1 15	6.2 0.3 34	30.5 3.3 168	35.1 4.5 163	128.7 8.8 366	108.7 10.1 326	5.0 0.3 40	0.4 * 2	2.0 0.1 12	0.8 * 4	4.8 0.4 24	8.4 0.2 46	19.2 0.9 1,220
<u>Sphyræna</u> spp. (largely <u>guachancho</u>)	-	-	-	-	-	-	-	-	-	0.4 * 2	0.4 * 2	-	0.1 * 4
<u>Mugil cephalus</u>	-	-	-	-	-	-	-	-	-	-	0.2 * 1	-	* * 1
<u>Polydactylus octonemus</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Citharichthys</u> spp. (largely <u>spilopterus</u>)	0.4 * 2	-	0.2 * 1	-	-	-	4.8 0.2 38	-	2.3 0.1 14	-	-	-	0.9 * 55
<u>Etropus crossotus</u>	16.2 0.4 89	10.9 0.6 60	37.1 2.9 149	2.2 0.4 14	-	-	1.0 0.1 8	7.8 0.4 39	64.3 1.9 386	14.0 0.5 70	11.6 0.9 58	18.2 0.5 100	15.3 0.7 973
<u>Paralichthys dentatus</u>	0.2 * 1	0.4 * 2	0.7 0.1 4	0.3 0.1 2	-	-	3.1 0.2 25	4.0 0.2 20	1.0 * 6	6.8 0.2 34	0.6 0.1 3	-	1.5 0.1 97
<u>Paralichthys lethostigma</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Scophthalmus aquosus</u>	-	1.1 0.1 6	14.4 1.5 79	4.6 0.8 30	9.3 0.6 28	3.3 0.3 10	2.3 0.1 18	-	-	-	-	-	2.7 0.1 171
<u>Syacium</u> spp.	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Bothus ocellatus</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Trinectes maculatus</u>	15.1 0.4 83	1.6 0.1 9	4.5 0.5 25	14.6 2.6 95	31.7 2.2 95	5.3 0.5 16	25.5 1.3 204	11.4 0.6 57	55.0 1.7 330	39.2 1.4 196	9.8 0.8 49	13.5 0.4 74	19.4 0.9 1,233
<u>Symphurus</u> spp. (largely <u>plagiusa</u>)	34.4 0.9 189	14.7 0.8 81	44.4 4.7 244	15.5 2.8 101	-	0.7 0.1 2	2.5 0.1 20	4.6 0.3 23	3.3 0.1 20	37.2 1.3 186	22.2 1.8 111	50.9 1.4 280	19.8 0.9 1,257
<u>Echeneis naucrates</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Balistes</u> spp.	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 2.--Continued

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
<u>Alutera schoepfi</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Stephanolepis</u> spp.	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Acanthostracion</u> spp. (largely <u>quadricornis</u>)	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Lagocephalus laevigatus</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Sphaeroides</u> spp.	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Chilomycterus schoepfi</u>	5.8 0.2 32	-	-	2.2 0.4 14	-	-	1.0 0.1 8	0.8 * 4	1.7 0.1 10	0.8 * 4	0.8 0.1 4	2.9 0.1 16	1.4 0.1 92
<u>Opsanus tau</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Porichthys porosissimus</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Ogcocephalus</u> spp. (largely <u>vespertilio</u>)	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	3,693.5 99.9 20,315	1,924.6 100.0 10,585	936.5 100.6 5,150	555.9 100.3 3,612	1,457.7 99.9 4,373	1,081.0 100.4 3,243	1,988.9 99.2 15,905	1,813.0 100.2 9,065	3,338.3 100.1 20,031	2,882.6 99.9 14,413	1,240.6 100.1 6,203	3,571.1 99.7 19,639	2,085.9 99.8 132,534

Table 3.--Fish taken by trawling, Georgia Outside, M/V Launch 58, 1931-35, catch per unit of effort (75-foot shrimp trawl at 2 to 3 knots) by months for all years and stations combined

[Upper figure, number of fish per hour of hauling; middle figure, percent of total catch; and lower figure, total number of fish; asterisk indicates value less than 0.05]

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
<u>Carcharhinus</u> spp.	-	-	-	* 1	-	0.3 0.1 6	0.1 * 2	* * 1	-	-	-	-	* * 10
<u>Scoliodon terraenovae</u>	-	-	-	-	1.0 0.1 23	1.2 0.2 22	3.4 0.3 102	0.6 0.1 20	0.1 * 4	1.3 0.1 35	0.1 * 1	-	0.7 0.1 207
<u>Sphyrna tiburo</u>	-	-	0.1 * 3	0.3 0.1 8	0.8 0.1 18	1.1 0.2 19	0.3 * 8	0.2 * 6	0.9 * 25	0.1 * 4	3.1 0.1 58	0.3 * 8	0.5 * 156
<u>Sphyrna zygaena</u>	-	-	* 1	-	-	0.4 0.1 8	0.8 0.1 24	0.5 * 16	0.5 * 15	0.2 * 5	-	-	0.2 * 69
<u>Pristia pectinatus</u>	-	-	-	-	-	-	-	-	* 1	-	-	-	* 1
<u>Rhinobatos lentiginosus</u>	-	-	-	-	0.1 * 1	0.1 * 2	-	0.1 * 4	0.1 * 2	-	-	-	* * 9
<u>Torpedo nobiliana</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Raja eglanteria</u>	4.4 0.4 87	2.3 0.2 88	1.2 0.2 32	2.7 0.4 68	0.9 0.1 19	-	0.1 * 2	0.1 * 3	0.2 * 5	4.8 0.3 133	5.0 0.2 95	13.3 0.6 353	2.8 0.2 885
<u>Dasyatis americana</u>	0.4 * 8	0.2 * 8	0.3 0.1 8	3.6 0.5 91	0.9 0.1 19	0.2 * 3	5.3 0.5 158	1.3 0.1 43	1.3 * 38	1.2 0.1 33	0.8 * 15	0.7 * 19	1.4 0.1 443
<u>Dasyatis centroura</u>	-	-	-	0.1 * 2	-	-	-	-	-	-	-	-	* 2
<u>Dasyatis sabina</u>	1.1 0.1 21	1.4 0.1 55	0.8 0.1 20	1.3 0.2 34	0.5 0.1 10	0.5 0.1 9	0.6 0.1 18	2.8 0.2 88	3.4 0.1 98	2.3 0.1 64	1.7 0.1 33	23.2 1.0 616	3.4 0.2 1066
<u>Gymnura micrura</u>	-	0.1 * 2	-	0.5 0.1 13	0.6 0.1 14	0.2 * 4	2.1 0.2 62	* * 1	0.7 * 20	0.5 * 13	0.2 * 4	0.3 * 8	0.4 * 141
<u>Aetobatus narinari</u>	-	0.2 * 8	-	* * 1	-	-	* * 1	-	-	-	-	0.1 * 2	* * 12
<u>Rhinoptera bonasus</u>	-	0.7 0.1 29	4.3 0.7 112	0.2 * 4	1.5 0.2 32	-	0.4 * 12	0.3 * 8	0.6 * 18	0.3 * 9	-	0.2 * 4	0.7 0.1 228
<u>Acipenser oxyrinchus</u>	-	0.1 * 2	-	-	-	-	-	-	-	-	-	0.1 * 3	* * 5
<u>Lepisosteus osseus</u>	-	-	-	-	-	-	-	0.1 * 2	* * 1	* * 1	-	-	* * 4
<u>Brevoortia</u> spp. (<u>tyrannus</u> and <u>smithi</u>)	107.9 8.7 2,157	224.6 22.0 8,703	52.4 8.9 1,362	2.1 0.3 52	28.1 3.1 619	15.9 2.3 287	3.7 0.3 112	1.1 0.1 35	1.1 * 31	0.3 * 8	1.1 0.1 21	13.7 0.6 362	43.6 3.1 13,749
<u>Opisthonema oglinum</u>	-	-	-	0.2 * 4	0.2 * 4	5.1 0.7 91	0.3 * 10	0.1 * 4	-	0.1 * 2	-	0.1 * 2	0.4 * 117
All other genera and species of herrings	0.1 * 1	0.3 * 12	0.2 * 6	-	1.3 0.1 28	0.2 * 4	* * 1	* * 1	-	-	-	0.1 * 2	0.2 * 55
<u>Anchoa</u> spp. (largely <u>mitchilli</u> and <u>hpesetus</u>)	33.2 2.7 664	29.5 2.9 1,144	40.3 6.8 1,047	29.2 4.3 737	13.5 1.5 297	22.4 3.2 403	5.1 0.5 153	5.1 0.4 163	23.7 0.9 692	39.0 2.0 1,073	67.7 3.2 1,287	36.4 1.6 965	27.4 2.0 8,625
<u>Synodus foetens</u>	-	* * 1	-	1.1 0.2 28	2.1 0.2 46	3.0 0.4 54	1.7 0.2 51	2.8 0.2 90	1.3 * 38	4.2 0.2 115	10.0 0.5 190	2.3 0.1 60	2.1 0.2 673
<u>Trachinocephalus myops</u>	-	-	-	-	-	-	-	-	0.2 * 6	-	-	-	* * 6

Table 3.--Continued

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
<u>Bagre marinus</u>	-	-	-	5.7 0.8 145	42.0 4.6 923	2.0 0.3 36	15.0 1.4 450	26.3 2.0 840	142.7 5.4 4,174	75.1 3.8 2,064	90.9 4.2 1,728	-	32.9 2.4 10,360
<u>Galeichthys felis</u>	2.0 0.2 40	-	0.2 * 6	16.2 2.4 408	7.4 0.8 162	6.4 0.9 115	14.0 1.3 420	42.0 3.2 1,345	29.0 1.1 848	22.0 1.1 606	22.5 1.1 428	3.5 0.2 94	14.2 1.0 4,472
<u>Ophichthus</u> spp.	-	* 1	-	-	-	-	-	-	-	-	-	* 1	* 2
<u>Urophycis</u> spp.	5.7 0.5 113	48.4 4.8 1,876	73.8 12.5 1,918	20.7 3.2 922	1.3 0.1 29	-	-	-	-	-	-	0.1 * 2	14.1 1.0 4,460
<u>Fistularia tabacaria</u>	-	-	-	-	-	-	-	-	0.1 * 2	-	-	-	* 2
<u>Hippocampus</u> spp.	* * 1	-	* * 1	-	-	-	* * 1	-	-	-	-	-	* * 3
<u>Syngnathus</u> spp.	-	* 1	* 1	-	-	-	-	0.2 * 5	-	-	-	-	* * 7
<u>Centropristis striatus</u>	-	0.4 * 15	0.4 0.1 10	0.2 * 5	0.4 * 8	-	* * 1	0.4 * 13	0.1 * 4	0.1 * 2	0.8 * 16	0.3 * 7	0.3 * 81
<u>Centropristis philadelphicus</u>	0.7 0.1 13	0.2 * 8	0.1 * 2	-	0.1 * 2	-	* * 1	* * 1	0.5 * 16	3.5 0.2 95	8.2 0.4 156	1.7 0.1 44	1.1 0.1 338
<u>Diplectrum formosum</u>	-	-	-	-	1.3 0.1 28	0.2 * 4	0.7 0.1 20	1.5 0.1 48	8.9 0.3 260	-	0.1 * 2	-	1.2 0.1 362
<u>Lobotes surinamensis</u>	-	-	-	-	0.1 * 1	0.1 * 1	-	-	-	-	-	-	* * 2
<u>Pomatomus saltatrix</u>	0.6 * 11	0.1 * 5	1.0 0.2 26	0.2 * 4	0.4 * 8	0.5 0.1 9	-	-	-	* * 1	3.8 0.2 72	3.0 0.1 80	0.7 0.1 216
<u>Rachycentron canadum</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Caranx crysos</u>	-	-	0.1 * 2	-	0.1 * 2	0.5 0.1 9	0.8 0.1 23	0.2 * 5	2.1 0.1 62	1.3 0.1 36	-	0.2 * 4	0.5 * 143
<u>Caranx</u> spp.	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Chloroscombrus chrysurus</u>	120.1 9.7 2,401	40.9 4.0 1,585	13.0 2.2 337	0.9 0.1 22	23.1 2.5 509	106.3 15.3 1,913	119.0 10.7 3,570	171.9 13.0 5,502	306.6 11.5 8,967	58.5 3.0 1,609	98.9 4.6 1,880	36.2 1.6 960	93.1 6.7 29,255
<u>Decapterus punctatus</u>	-	-	-	-	-	-	* * 1	-	-	-	-	-	* * 1
<u>Selene vomer</u>	-	0.1 * 3	-	-	-	1.5 0.2 27	5.3 0.5 160	4.5 0.3 145	1.0 * 30	2.9 0.2 79	3.1 0.1 59	0.3 * 8	1.6 0.1 511
<u>Trachinotus</u> spp.	-	-	-	-	0.1 * 2	-	0.6 0.1 17	2.9 0.2 94	0.1 * 2	0.3 * 9	0.1 * 1	-	0.4 * 125
<u>Trachurus lathami</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Vomer setapinnis</u>	1.1 0.1 22	0.5 0.1 18	0.9 0.2 23	0.9 0.1 23	2.5 0.3 56	1.1 0.2 19	0.2 * 6	6.7 0.5 215	11.9 0.4 347	9.5 0.5 262	90.1 4.2 1,712	90.3 4.0 2,392	16.2 1.2 5,095
<u>Eucinostomus</u> spp.	-	-	-	-	-	-	-	0.1 * 3	0.8 * 26	0.4 * 11	2.8 0.1 54	* * 1	0.3 * 95

Table 3.--Continued

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
<u>Haemulon aurolineatum</u>	-	-	-	-	-	-	0.4 * 12	-	-	-	-	-	* * 12
<u>Orthopristis chrysopterus</u>	1.0 0.1 20	-	-	-	-	0.1 * 2	0.5 0.1 15	0.3 * 10	8.8 0.3 256	1.1 0.1 30	1.2 0.1 22	* * 1	1.1 0.1 356
<u>Bairdiella chrysura</u>	2.6 0.2 51	4.6 0.5 180	1.5 0.3 40	5.9 0.9 148	4.1 0.5 90	2.4 0.3 43	4.9 0.4 146	3.8 0.3 122	3.8 0.1 111	3.1 0.2 86	7.6 0.4 145	13.6 0.6 361	4.8 0.4 1,523
<u>Cynoscion nebulosus</u>	0.2 * 4	0.1 * 5	-	-	-	0.1 * 1	0.7 0.1 21	0.2 * 6	0.3 * 10	-	0.1 * 1	0.2 * 6	0.2 * 54
<u>Cynoscion nothus</u>	0.7 0.1 13	* * 1	* * 1	8.1 1.2 204	3.6 0.4 79	7.4 1.1 133	14.0 1.3 421	79.7 6.0 2,557	134.2 5.0 3,926	1.0 0.1 27	13.5 0.6 257	11.9 0.5 315	25.2 1.8 7,934
<u>Cynoscion regalis</u>	59.5 4.8 1,189	42.5 4.2 1,645	6.5 1.1 170	44.3 6.5 1,119	25.2 2.8 555	7.8 1.1 140	48.3 4.4 1,448	53.5 4.0 1,712	70.4 2.6 2,060	48.7 2.5 1,340	56.7 2.6 1,077	120.8 5.4 3,202	49.8 3.6 15,657
<u>Equetus acuminatus</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Equetus lanceolatus</u>	-	-	-	-	-	-	0.1 * 4	-	-	-	-	-	* * 4
<u>Larimus fasciatus</u>	6.9 0.6 138	2.6 0.3 102	3.3 0.6 87	8.8 1.3 221	19.9 2.2 437	12.4 1.8 224	13.1 1.2 392	46.1 3.5 1,476	80.4 3.0 2,353	29.2 1.5 802	77.0 3.6 1,463	9.5 0.4 252	25.3 1.8 7,947
<u>Leiostomus xanthurus</u>	88.5 7.1 1,769	262.7 25.8 10,178	157.4 26.6 4,092	20.2 2.9 509	205.3 22.5 4,516	14.6 2.1 263	39.9 3.6 1,198	57.9 4.4 1,852	45.7 1.6 1,279	16.9 0.9 464	38.2 1.8 726	287.7 12.7 7,623	109.7 7.8 34,469
<u>Menticirrhus</u> spp. (largely <u>americanus</u>)	202.8 16.3 4,056	109.5 10.8 4,244	28.8 4.9 750	85.7 12.5 2,166	22.1 2.4 486	17.5 2.5 315	25.5 2.3 766	53.8 4.1 1,720	90.3 3.4 2,642	180.7 9.3 4,969	230.6 10.7 4,382	175.7 7.8 4,656	99.1 7.1 31,152
<u>Micropogon undulatus</u>	93.1 7.5 1,862	3.2 0.3 125	2.7 0.5 71	1.3 0.2 32	21.8 2.4 479	91.7 13.2 1,651	135.4 12.2 4,062	258.7 19.5 8,277	676.6 25.4 19,790	202.9 10.4 5,581	81.2 3.8 1,542	27.0 1.2 716	140.6 10.1 44,188
<u>Pogonias cromis</u>	-	-	* 1	-	-	-	-	-	-	* 1	0.1 2	0.1 2	* * 6
<u>Stellifer lanceolatus</u>	357.1 28.7 7,141	138.4 13.6 5,362	119.6 20.2 3,110	322.6 47.1 8,146	297.4 32.6 6,543	277.6 40.1 4,997	501.4 45.2 15,042	397.5 30.0 12,719	805.5 30.2 23,561	1,090.4 55.8 29,987	1,045.6 48.7 19,867	1,117.8 49.5 29,623	528.6 38.0 166,098
<u>Mullus auratus</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Lagodon rhomboides</u>	0.1 * 1	0.8 0.1 30	-	-	34.2 3.8 752	3.6 0.5 64	15.4 1.4 462	-	-	0.9 0.1 26	1.8 0.1 35	0.5 * 13	4.4 0.3 1,383
<u>Stenotomus</u> spp.	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Chaetodipterus faber</u>	-	-	-	0.5 0.1 13	* * 10	0.8 0.1 14	0.7 * 21	19.8 1.5 634	27.2 1.0 797	10.6 0.5 292	1.7 0.1 32	* * 1	5.8 0.4 1,814
<u>Xyrichtys</u> spp.	-	-	-	1.0 0.1 24	5.6 0.6 124	2.1 0.3 37	2.5 0.2 76	3.4 0.3 109	7.8 0.3 228	-	0.1 * 2	-	1.9 0.1 600
<u>Trichiurus lepturus</u>	13.5 1.1 269	16.2 1.6 626	25.1 4.2 652	19.2 2.8 485	35.5 3.9 780	26.8 3.9 483	56.3 5.1 1,688	39.2 3.0 1,254	16.0 0.6 467	1.6 0.1 44	23.6 1.1 449	59.4 2.6 1,575	27.8 2.0 8,772
<u>Scomberomorus maculatus</u>	-	0.1 * 2	-	-	* * 1	-	0.1 * 2	0.2 * 6	0.1 * 4	0.3 * 8	1.1 0.1 20	-	0.1 0.1 43
<u>Gobionellus oceanicus</u>	-	-	-	-	* * 1	-	* * 1	-	-	-	-	-	* * 2

Table 3.--Continued

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
<u>Scorpaena</u> spp.	-	-	-	-	-	-	-	-	0.1 *	-	0.1 *	-	* *
									2	2			4
<u>Prionotus</u> spp.	4.0 0.3 79	3.0 .3 116	1.9 .1 24	8.1 1.2 205	3.1 .4 67	24.7 3.5 444	7.9 0.7 237	6.8 0.5 218	6.4 .2 186	9.9 0.6 273	13.9 0.6 264	11.9 0.6 315	7.8 0.6 2,428
<u>Astroscopus y-graecum</u>	1.0 0.1 20	1.2 * 6	-	0.2 * 5	0.2 * 4	1.5 0.1 9	-	-	0.2 * 7	-	0.2 * 4	0.7 * 19	0.2 * 74
<u>Hypsoblennius</u> spp.	-	-	* 1	0.1 * 2	0.1 * 1	-	-	-	-	-	-	-	* * 4
<u>Rissola marginata</u>	0.1 * 1	-	-	* 1	-	0.1 * 1	-	-	-	-	.1 * 3	.2 * 4	* * 9
<u>Peprilus alepidotus</u>	10.1 0.8 201	5.7 0.6 221	7.9 1.3 205	12.9 1.9 326	16.5 1.8 364	14.8 2.1 266	5.4 0.5 163	6.8 0.5 218	12.1 0.5 354	11.6 0.6 320	8.3 0.4 157	34.5 1.5 913	11.8 0.9 3,708
<u>Poronotus triacanthus</u>	13.2 1.1 263	16.4 1.6 636	21.3 3.6 554	21.4 3.1 540	37.5 4.1 825	4.8 0.7 86	2.6 0.2 79	2.4 0.2 77	39.7 1.5 1,161	6.4 0.3 176	14.7 0.7 279	21.4 1.0 567	16.6 1.2 5,243
<u>Sphyræna</u> spp. (largely <u>guachancho</u>)	0.1 * 1	-	-	-	-	-	-	-	* * 1	-	-	-	* * 2
<u>Mugil cephalus</u>	-	-	-	-	-	-	-	-	-	-	0.5 *	* *	* * 10
<u>Polydactylus octonemus</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Ancylosetta quadrocellata</u>	1.7 0.1 34	0.9 0.1 33	* * 1	0.7 0.1 18	2.7 0.3 60	4.0 0.6 72	1.0 0.1 29	0.9 0.1 29	0.6 * 17	0.2 * 6	0.6 * 12	0.2 * 5	1.0 0.1 316
<u>Citharichthys</u> spp. (largely <u>spilopterus</u>)	1.0 0.1 20	0.4 * 14	0.1 * 3	* * 1	1.7 0.2 37	1.8 0.3 33	4.0 0.4 119	1.6 0.1 50	2.3 0.1 68	1.2 0.1 33	2.7 0.1 52	4.9 0.2 131	1.8 0.1 561
<u>Etropus crossotus</u>	87.2 7.0 1,744	44.8 4.4 1,735	16.7 2.8 435	5.1 0.8 129	4.6 0.5 102	1.0 0.1 18	8.6 0.8 258	3.6 0.3 114	25.3 0.9 739	42.7 2.2 1,173	60.4 2.8 1,148	67.9 3.0 1,799	29.9 2.2 9,394
<u>Paralichthys dentatus</u>	1.5 0.1 30	1.2 0.1 46	0.5 0.1 14	0.3 0.1 8	0.5 0.1 11	1.3 0.2 23	4.7 0.4 140	1.4 0.1 44	1.1 * 31	1.2 0.1 33	2.4 0.1 46	4.3 0.2 113	1.7 0.1 539
<u>Paralichthys lethostigma</u>	-	0.2 * 8	-	-	-	-	-	-	-	0.1 * 2	0.3 * 6	0.2 * 5	0.1 * 21
<u>Scophthalmus aquosus</u>	2.1 0.2 41	3.9 0.4 150	5.7 1.0 149	12.9 1.9 325	25.8 2.8 567	2.2 0.3 40	2.9 0.3 87	0.3 * 10	0.6 * 18	3.7 0.2 102	5.6 0.3 107	2.2 0.1 58	5.3 0.4 1,654
<u>Syacium</u> spp.	-	-	-	-	-	0.3 0.1 6	-	0.6 * 19	1.2 * 36	-	-	-	0.2 * 61
<u>Bothus ocellatus</u>	-	-	-	-	-	0.1 * 2	-	0.1 * 4	-	-	-	-	* * 6
<u>Trinectes maculatus</u>	9.5 0.8 189	3.4 0.3 131	1.5 0.3 39	7.6 1.1 191	2.9 0.3 63	2.3 0.3 42	26.7 2.4 802	10.4 0.8 333	19.6 0.7 572	37.8 1.9 1,040	28.1 1.3 534	24.8 1.1 658	14.6 1.1 4,594
<u>Symphurus</u> spp. (largely <u>plagiatus</u>)	11.0 0.9 220	8.6 0.9 335	2.9 0.5 76	10.9 1.6 274	6.0 0.7 132	0.4 0.1 8	5.1 0.5 153	0.4 * 14	5.9 0.2 173	20.0 1.0 550	14.8 0.7 282	34.3 1.5 909	9.9 0.7 3,126
<u>Echeneis naucrates</u>	-	-	-	-	-	-	* 1	-	* 1	-	-	-	* 2
<u>Balistes</u> spp.	-	-	-	-	* 1	-	* 1	-	-	-	-	-	* 2

Table 3.--Continued

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
<u>Alutera schoepfii</u>	-	-	-	0.1 *	0.1 *	0.2 *	0.1 *	-	0.3 *	-	-	-	0.1 *
				2	3	3	4		5				20
<u>Stephanolepis</u> spp.	-	-	-	0.2 *	4.8 0.5	0.3 *	0.2 0.1	2.8 0.2	45.9 1.7	-	-	-	5.0 0.4
				5	105	5	26	88	1,342				1,571
<u>Acanthostracion</u> spp. (largely <u>quadricornis</u>)	-	-	-	-	* 1	-	-	-	-	-	-	-	* 1
<u>Lagocephalus laevigatus</u>	-	-	-	-	* 1	-	0.1 *	* 1	-	-	-	-	* 5
<u>Sphaeroides</u> spp.	-	-	* 1	-	* 1	-	* 1	* 1	-	-	0.1 *	0.1 *	* 8
<u>Chilomycterus schoepfi</u>	0.4 *	0.1 *	0.2 *	0.5 0.1	0.4 *	0.2 *	0.4 *	0.4 *	0.6 *	2.5 0.1	1.9 0.1	0.8 *	0.6 0.1
	7	2	5	12	8	4	11	12	18	68	36	20	203
<u>Opsanus tau</u>	-	-	-	0.4 0.1 11	-	-	-	-	-	-	-	-	* *
<u>Porichthys porosissimus</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Ogcocephalus</u> spp. (largely <u>vespertilio</u>)	-	-	-	-	-	-	-	-	0.5 *	0.4 *	0.8 *	0.1 *	0.1 *
									15	11	16	2	44
Total	1,246.2 100.5 24,902	1,019.5 100.1 39,497	591.7 100.1 15,397	685.1 100.3 17,294	911.8 99.9 20,066	693.1 99.8 12,474	1,109.1 100.3 33,277	1,324.4 99.8 42,387	2,667.4 99.1 77,965	1,953.0 100.3 53,713	2,146.6 99.9 40,792	2,259.1 99.8 59,864	1,391.5 100.2 437,628

Table 4.--Fish taken by trawling, Georgia Inside, M/V Launch 58, 1931-35, catch per unit of effort (75-foot shrimp trawl at 2 to 3 knots) by months for all years and stations combined

[Upper figure, number of fish per hour of hauling; middle figure, percent of total catch; and lower figure, total number of fish; asterisk indicates value less than 0.05]

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
<u>Carcharhinus</u> spp.	-	*	-	*	-	0.2	-	-	*	0.1	-	-	*
		1		2		9			2	2			16
<u>Scoliodon terraenovae</u>	0.1	-	-	0.1	0.5	5.0	2.7	0.3	*	11.1	-	0.1	0.8
	*			*	*	0.4	0.1	*	*	*		*	0.1
	2			3	24	207	84	15	1	2		2	340
<u>Sphyrna tiburo</u>	0.3	0.3	0.1	1.3	0.7	1.5	0.5	0.3	1.2	1.2	0.8	-	0.7
	*	*	*	0.1	0.1	0.1	*	*	0.1	0.1	*	-	0.1
	6	4	2	75	35	61	14	12	65	39	12		325
<u>Sphyrna zygaena</u>	-	-	-	-	0.1	1.1	2.3	0.7	0.2	0.1	-	-	0.4
					*	0.1	0.1	*	*	*			*
					4	46	70	34	11	2			167
<u>Pristis pectinatus</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Rhinobatos lentiginosus</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Torpedo nobiliana</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Raja eglanteria</u>	5.6	0.5	0.5	0.3	0.2	-	-	-	-	1.5	4.1	9.9	1.1
	0.4	0.1	0.1	*	*	-	-	-	-	0.1	0.2	0.4	0.1
	111	13	23	17	10					48	63	190	475
<u>Dasyatis americana</u>	-	-	*	1.0	0.4	0.6	0.8	0.4	0.1	0.1	1.5	0.5	0.4
			*	0.1	*	*	*	*	*	*	0.1	*	*
			1	56	21	24	25	17	7	4	23	10	188
<u>Dasyatis centroura</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Dasyatis sabina</u>	3.9	0.4	0.7	5.1	7.6	6.5	3.4	0.8	1.8	4.5	9.6	9.4	4.4
	0.3	0.1	0.1	0.4	0.7	0.5	0.2	0.2	0.1	0.3	0.4	0.4	0.3
	77	10	29	297	378	270	105	175	93	147	146	181	1,908
<u>Gymnura micrura</u>	-	-	-	0.6	2.2	1.4	2.0	1.1	0.7	0.5	-	-	0.8
				*	0.2	0.1	0.1	0.1	*	*			0.1
				35	108	59	61	50	37	15			365
<u>Aetobatus narinari</u>	-	*	-	*	-	-	-	-	-	-	-	-	*
		1		2									*
													3
<u>Rhinoptera bonasus</u>	-	-	*	0.2	0.8	0.5	0.8	*	0.2	0.1	-	-	0.3
			*	*	0.1	*	*	*	*	*			*
			2	13	40	19	25	2	11	2			114
<u>Acipenser oxyrhynchus</u>	-	-	-	-	-	-	-	-	-	-	-	0.3	*
												*	*
												5	5
<u>Lepisosteus osseus</u>	-	-	*	0.4	0.4	0.2	0.3	0.2	0.1	0.2	0.3	0.3	0.2
			*	*	*	*	*	*	*	*	*	*	*
			2	25	18	9	9	9	7	5	4	5	93
<u>Brevoortia</u> spp.	49.9	66.1	31.4	10.3	9.1	11.1	7.2	2.0	0.3	1.3	2.6	4.3	13.9
(<u>tyrannus</u> and <u>smithi</u>)	3.3	13.3	3.0	0.7	0.8	0.8	0.3	0.1	*	0.1	0.1	0.2	0.9
	986	1,735	1,333	598	455	461	223	94	15	44	39	83	6,066
<u>Opisthonema oglinum</u>	28.4	4.3	*	*	*	-	0.3	*	-	0.1	-	1.2	1.6
	1.9	0.9	*	*	*	-	*	*	-	*	-	0.1	0.1
	560	112	1	2	1		8	1		2		24	711
All other genera and species of herrings	1.9	1.4	0.3	-	0.1	-	*	*	0.1	-	-	-	0.2
	0.1	0.3	*	-	*	-	*	*	*	-	-	-	*
	37	38	14		4		1	1	6				101
<u>Anchoa</u> spp. (largely <u>mitchilli</u> and <u>hepsetus</u>)	43.2	12.9	34.9	72.5	37.6	31.3	9.5	6.5	16.3	96.5	176.6	72.9	43.4
	3.2	2.6	3.4	5.0	3.4	2.4	0.4	0.4	1.2	5.9	6.5	2.7	2.9
	951	339	1,484	4,204	1,871	1,299	295	299	865	3,184	2,693	1,404	18,888
<u>Synodus foetens</u>	0.4	-	-	-	-	0.1	0.3	-	*	0.1	0.3	0.1	0.1
	*					*	*	-	*	*	*	*	*
	8					6	8		1	2	4	1	30
<u>Trachinocephalus myops</u>	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 4.--Continued

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
<u>Bagre marinus</u>	-	-	*	5.8	23.2	46.2	26.7	103.4	109.2	52.2	7.4	0.3	38.2
			*	0.4	2.1	3.5	1.2	5.6	7.8	3.2	0.3	*	2.5
			3	335	1,156	1,917	828	4,756	5,789	1,724	113	6	16,627
<u>Galeichthys felis</u>	0.8	*	0.4	52.0	87.5	114.4	90.5	152.7	40.2	17.2	6.9		56.9
	0.1	*	*	3.6	8.0	8.6	4.2	8.3	2.9	1.1	0.3	-	3.8
	16	1	15	3,017	4,351	4,749	2,805	7,024	2,129	568	105		24,730
<u>Ophichthus</u> spp.	-	-	-	-	-	-	-	*	*	-	-	-	*
								1	1				2
<u>Urophycis</u> spp.	2.5	92.1	167.2	27.1	1.5								25.8
	0.2	18.5	16.2	1.9	0.1	-	-	-	-	-	-	-	1.7
	49	2,417	7,108	1,573	76								11,223
<u>Fistularia tabacaria</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Hippocampus</u> spp.	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Syngnathus</u> spp.	0.1	0.1										0.1	*
	*	*	-	-	-	-	-	-	-	-	-	*	*
	2	3										1	6
<u>Centropristis striatus</u>	2.9	0.3	0.1	1.0	0.4	0.4			0.1	0.6	0.3	0.2	0.5
	0.2	0.1	*	0.1	*	*	-	-	*	*	*	*	*
	57	7	4	58	22	17			7	19	4	4	199
<u>Centropristis philadelphicus</u>	0.3	0.4	0.1	0.1	*			*	0.5	2.8	2.8	1.4	0.5
	*	0.1	*	*	*	-	-	*	*	0.2	0.1	0.1	*
	5	11	6	8	2			2	29	92	42	27	224
<u>Diplectrum formosum</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Lobotes surinamensis</u>	-	-	-	*	*	*	0.1	*					*
				*	*	*	*	*	-	-	-	-	*
				1	1	1	3	1					7
<u>Pomatomus saltatrix</u>	4.5	4.9	0.5	0.3	1.9	0.3	0.2	*		0.2	0.7	2.5	1.0
	0.3	1.0	0.1	*	0.2	*	*	*	-	*	*	0.1	0.1
	88	129	23	15	95	11	5	2		6	11	49	434
<u>Rachycentron canadum</u>	-	-	-	-	-	-	-	-	-	*	-	-	*
										1			1
<u>Caranx crysos</u>	-	-	-	*		0.1	0.2	1.1	0.4	0.6			0.2
				*	-	*	*	0.1	*	*	-	-	*
				1		4	6	49	20	20			100
<u>Caranx</u> spp.	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Chloroscombrus chrysurus</u>	13.2	7.9	3.1	0.2	15.4	17.1	16.1	30.3	18.1	18.7	16.9	26.0	14.5
	0.9	1.6	0.3	*	1.4	1.3	0.7	1.6	1.3	1.1	0.6	1.0	1.0
	260	207	130	14	767	711	499	1,396	960	618	257	500	6,319
<u>Decapterus punctatus</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Selene vomer</u>	0.7	0.5		*	*	3.1	5.4	2.6	3.8	14.9	4.1	0.8	2.8
	0.1	0.1	-	*	*	0.2	0.3	0.1	0.3	0.9	0.2	*	0.2
	14	13		1	1	129	167	119	204	491	63	16	1,218
<u>Trachinotus</u> spp.	-	-	-	-	*	-	*	0.1					*
					*	-	*	*	-	-	-	-	*
					1		1	4					6
<u>Trachurus lathami</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Vomer setapinnis</u>	-	-	*		1.9	*	0.3	1.5	3.9	5.1	2.1	0.2	1.4
			*	-	0.2	*	*	0.1	0.3	0.3	0.1	*	0.1
			1		95	1	8	71	209	169	32	3	589
<u>Eucinostomus</u> spp.	-	-	-	-	-	-	-	*	0.1	0.1	0.2	0.1	*
								*	*	*	*	*	*
								2	6	2	3	2	15

Table 4.--Continued

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
<u>Haemulon aurolineatum</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Orthopristis chrysopterus</u>	-	-	-	*	-	-	3.2	0.6	0.5	-	-	-	0.4
				*			10.1	26	27				157
<u>Bairdiella chrysura</u>	18.0	3.7	6.5	54.4	12.2	6.1	7.9	4.	7.0	17.2	31.0	17.2	10.9
	1.2	0.5	0.6	1.6	1.1	0.5	0.4	.	0.5	1.1	0.2	0.7	0.7
	355	71	276	1,359	608	254	345	154	403	564	39	345	4,754
<u>Cynoscion nebulosus</u>	0.7	0.1	0.1	0.2	0.7	0.9	1.4	1.6	0.4	0.2	1.6	1.0	0.5
	*	*	*	*	*	0.1	0.1	*	*	*	*	*	*
	13	3	2	10	35	37	42	16	21	8	1	13	224
<u>Cynoscion nothus</u>	0.2	-	-	1.3	5.0	1.7	0.6	0.5	-	1.5	1.4	-	1.0
	*	-	-	*	0.5	*	*	*	-	*	1	-	0.1
	3	-	-	15	180	69	21	29	-	15	-	-	456
<u>Cynoscion regalis</u>	49.3	9.9	15.2	91.8	38.6	54.0	92.5	117.3	72.6	96.1	51.7	42.5	64.9
	3.3	2.0	1.5	6.3	3.5	4.1	4.3	6.4	5.2	5.2	1.1	1.6	4.5
	974	260	645	5,323	1,920	2,229	2,868	5,397	3,848	1,171	803	819	28,267
<u>Equetus acuminatus</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Equetus lanceolatus</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Larimus fasciatus</u>	2.2	0.2	0.7	0.7	0.2	0.1	0.4	1.0	0.3	0.6	0.3	0.3	0.5
	0.1	*	0.1	0.1	*	*	*	0.1	*	*	*	*	*
	43	4	30	43	10	3	11	46	18	19	4	5	236
<u>Leiostomus xanthurus</u>	180.2	23.5	264.7	376.8	37.8	80.0	169.6	27.5	23.9	19.8	27.5	38.0	119.7
	11.9	4.7	25.6	25.9	3.5	6.1	7.8	1.5	1.7	1.2	1.0	1.4	8.0
	3,559	610	11,250	21,652	1,883	3,345	5,259	1,267	1,266	654	419	732	52,102
<u>Menticirrhus spp.</u> (largely <u>americanus</u>)	145.8	33.7	34.8	29.4	7.4	11.4	17.9	23.7	20.9	42.4	76.5	84.8	33.2
	9.7	6.8	3.4	2.0	0.7	0.9	0.8	1.3	1.5	2.6	2.8	3.2	2.3
	2,880	884	1,478	1,704	370	475	554	1,091	1,106	1,400	1,167	1,632	14,741
<u>Micropogon undulatus</u>	15.6	2.7	4.6	22.2	109.2	310.7	450.1	312.8	111.2	48.6	18.8	3.6	129.5
	1.0	0.6	0.4	1.5	10.0	23.4	20.8	17.0	7.9	3.0	0.7	0.1	8.6
	308	72	195	1,288	5,434	12,893	13,953	14,387	5,895	1,604	286	70	56,385
<u>Pogonias cromis</u>	-	-	-	-	-	-	-	-	*	*	*	-	*
									*	*	*	-	*
									1		2		3
<u>Stellifer lanceolatus</u>	716.7	139.7	323.3	477.4	265.3	485.8	1,132.4	903.6	848.3	964.0	1,894.5	1,823.0	735.2
	47.4	28.0	31.3	32.8	42.6	36.6	52.3	49.0	60.2	58.7	70.1	67.9	48.9
	14,154	3,666	13,742	27,690	23,148	20,159	35,104	41,564	44,960	31,811	28,891	35,092	319,981
<u>Mullus auratus</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Lagodon rhomboides</u>	0.1	-	-	*	-	0.1	0.7	*	-	-	-	-	0.1
	*	-	-	*	-	*	*	*	-	-	-	-	*
	1	-	-	1	-	3	21	2	-	-	-	-	28
<u>Stenotomus spp.</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Chaetodipterus faber</u>	-	-	0.1	0.6	9.3	9.9	3.4	22.5	11.2	3.8	0.5	-	6.4
	-	-	*	*	0.9	0.8	0.2	1.2	0.8	0.2	*	-	0.4
	-	-	2	32	463	409	106	1,035	592	126	8	-	2,773
<u>Xyrichtys spp.</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Trichiurus lepturus</u>	35.4	4.4	21.9	27.2	59.5	49.5	36.5	8.5	1.7	9.5	7.9	6.2	24.1
	2.3	0.9	2.1	1.9	5.5	3.7	1.7	0.5	0.1	0.6	0.3	0.2	1.6
	700	116	932	1,576	2,962	2,053	1,130	392	92	312	121	120	10,506
<u>Scomberomorus maculatus</u>	0.1	0.1	-	*	-	-	-	0.1	0.2	0.2	2.4	0.8	0.2
	*	*	-	*	-	-	-	*	*	*	0.1	*	*
	2	3	-	1	-	-	-	3	12	7	36	16	80
<u>Gobionellus oceanicus</u>	-	-	-	-	*	-	*	-	-	-	-	-	*
	-	-	-	-	*	-	*	-	-	-	-	-	*
	-	-	-	-	1	-	1	-	-	-	-	-	2

Table 4.--Continued

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
<u>Scorpaena</u> spp.	0.1 * 2	-	-	-	-	-	-	-	-	-	-	-	* * 2
<u>Prionotus</u> spp.	4.1 0.3 80	1.4 0.3 37	4.5 0.5 195	13.2 0.9 765	10.9 1.0 543	3.0 0.2 122	1.3 0.1 40	0.1 * 5	0.1 * 7	0.9 * 27	1.4 * 21	3.6 0.2 69	4.4 0.3 1,911
<u>Astroscoptes v-graecum</u>	1.4 0.1 28	0.8 0.2 20	0.5 * 19	0.7 0.1 43	1.1 0.1 56	0.7 0.1 27	0.8 * 24	0.1 * 4	* * 1	0.1 * 4	-	1.6 0.1 30	0.6 * 256
<u>Hypsoblennius</u> spp.	0.2 * 3	-	0.1 * -	-	-	-	* * 1	-	-	-	0.1 * 2	-	* * 8
<u>Rissola marginata</u>	-	-	-	0.1 * 3	-	* 1	-	-	-	-	-	-	* * 4
<u>Peprilus alepidotus</u>	9.3 0.6 184	4.3 0.9 112	12.2 1.2 519	50.3 5.5 2,916	32.0 8.4 4,578	25.1 1.9 1,041	10.7 0.5 332	6.5 0.4 301	7.7 0.5 409	9.9 0.6 326	8.2 0.3 125	3.9 0.2 76	25.1 1.7 10,919
<u>Poronotus triacanthus</u>	4.4 0.3 87	4.6 0.9 122	5.3 0.5 227	7.3 0.5 425	9.9 0.9 491	3.7 0.3 153	0.2 * 6	2.3 0.1 106	14.5 1.0 769	11.0 0.7 362	3.9 0.1 59	7.4 0.3 142	6.8 0.5 2,949
<u>Sphyræna</u> spp. (largely <u>guachancho</u>)	-	-	-	-	-	0.1 * 2	-	-	-	2.2 0.1 71	-	-	0.2 * 73
<u>Mugil cephalus</u>	-	-	-	-	-	-	-	-	-	-	0.1 * 2	-	* * 2
<u>Polydactylus octonemus</u>	-	-	-	-	-	* 1	-	-	-	-	-	-	* * 1
<u>Ancyllopsetta quadricellata</u>	1.1 0.1 21	0.8 0.2 22	2.5 0.2 106	8.1 0.6 470	2.2 0.2 109	0.6 0.1 26	-	-	-	-	0.1 * 1	-	1.7 0.1 755
<u>Citharichthys</u> spp. (largely <u>spilopterus</u>)	0.1 * 1	-	0.1 * 3	-	0.1 * 6	1.4 0.1 60	2.0 0.1 61	0.7 * 34	0.5 * 24	* * 1	-	-	0.4 * 190
<u>Etropus crossotus</u>	131.8 8.7 2,604	64.5 13.0 1,694	66.7 6.5 2,833	91.1 6.3 5,281	9.6 0.9 480	2.5 0.2 105	6.0 0.3 185	16.8 0.9 773	34.4 2.4 1,825	128.2 7.8 4,230	278.8 10.3 4,251	420.4 15.7 8,092	74.3 4.9 32,353
<u>Paralichthys dentatus</u>	2.6 0.2 51	1.7 0.3 44	1.8 0.2 78	2.4 0.2 142	5.7 0.5 284	6.2 0.5 257	14.5 0.7 451	3.0 0.2 137	2.9 0.2 154	4.5 0.3 149	2.0 0.1 31	3.5 0.1 67	4.2 0.3 1,845
<u>Paralichthys lethostigma</u>	0.1 * 2	0.3 0.1 7	* * 1	-	-	-	-	-	-	0.8 0.1 27	0.6 * 9	0.4 * 8	0.1 * 54
<u>Scophthalmus aquosus</u>	0.1 * 1	4.3 0.9 113	17.2 1.5 730	9.2 0.6 533	1.4 0.1 69	-	-	-	-	0.5 * 17	0.1 * 2	0.1 * 2	3.4 0.2 1,467
<u>Syacium</u> spp.	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Bothus ocellatus</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Trinectes maculatus</u>	0.6 * 11	1.8 0.4 46	0.9 0.1 38	8.8 0.6 510	15.3 1.4 761	29.6 2.2 1,228	40.0 1.9 1,239	80.0 4.3 3,679	41.8 3.0 2,217	34.9 2.1 1,151	29.4 1.1 449	14.5 0.5 279	26.7 1.8 11,608
<u>Symphurus</u> spp. (largely <u>plagiatus</u>)	25.5 1.7 504	4.3 0.9 113	9.1 0.9 386	35.4 2.4 2,051	6.0 0.6 300	1.3 0.1 56	1.4 0.1 42	4.7 0.3 218	8.7 0.6 459	23.5 1.4 776	44.8 1.7 683	76.2 2.8 1,466	16.2 1.1 7,054
<u>Echeneis naucrates</u>	-	-	-	-	* 2	* 1	-	-	-	-	-	-	* 3
<u>Balistes</u> spp.	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 4.--Continued

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
<u>Alutera schoepfii</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Stephanolepis</u> spp.	-	-	-	-	-	-	-	-	1 6	-	-	-	* * 6
<u>Acanthostracion</u> spp. (largely <u>quadricornis</u>)	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Lagocephalus laevigatus</u>	-	-	-	-	-	-	* 1	0.1 *	-	-	-	-	* *
<u>Sphaeroides</u> spp.	-	-	-	* 1	-	-	-	-	-	0.1 *	-	-	* *
<u>Chilomycterus schoepfi</u>	2.0 0.1 39	0.3 0.1 7	0.3 * 14	1.1 0.1 53	0.4 * 20	0.4 * 17	1.4 0.1 42	0.9 0.1 40	1.4 0.1 73	4.3 0.3 141	6.8 0.3 104	3.7 * 72	1.5 0.1 632
<u>Opsanus tau</u>	0.7 0.1 14	0.1 * 3	0.1 * 2	1.5 0.1 87	0.3 * 17	0.1 * 6	0.9 * 27	0.2 * 7	0.1 * 3	0.3 * 9	0.3 * 4	0.4 * 8	0.4 * 167
<u>Porichthys poronissimus</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Ogcocephalus</u> spp. (largely <u>vespertilio</u>)	-	-	-	-	-	-	-	-	-	0.1 * 2	1.2 * 18	-	0.1 * 20
Total	1,512.1 100.1 29,853	498.2 100.4 13,076	1,032.5 99.8 43,886	1,457.4 100.3 84,537	892.2 99.8 54,366	1,326.6 99.9 55,052	2,165.1 100.0 67,119	1,842.2 100.1 84,895	1,408.3 99.7 74,662	1,643.0 100.0 54,204	2,703.9 100.1 41,232	2,684.4 100.0 51,674	1,503.5 99.9 654,556

Table 4.--Fish taken by trawling, Florida Outside, M/V Launch 5B, 1933-35, catch per unit of effort (75-foot shrimp trawl at 2 to 3 knots) by months for all years and stations combined

[Upper figure, number of fish per hour of hauling; middle figure, percent of total catch; and lower figure, total number of fish; asterisk indicates value less than 0.05]

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
<u>Carcharhinus</u> spp.	-	-	-	-	-	-	0.2 * 5	-	-	-	-	0.5 * 4	0.1 * 7
<u>Scoriodon terrenewae</u>	-	-	-	-	-	-	.1 * 1	0.5 * 6	-	0.9 * 6	0.1 * 1	0.1 * 1	0.2 * 15
<u>Sphyrna tiburo</u>	5.2 * 44	0.6 * 1	0.3 * 2	1.4 * 2	1.5 0.4 3	0.3 0.1 1	-	-	-	4.6 0.1 32	12.3 0.2 92	0.4 0.2 54	2.5 0.1 236
<u>Sphyrna zygaena</u>	0.2 * 2	-	0.8 0.1 5	-	-	1.0 0.3 5	0.4 * 5	-	0.2 * 2	0.1 * 2	1.2 * 9	0.4 * 3	0.3 * 31
<u>Pristis pectinatus</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Rhinobatos lentiginosus</u>	-	-	-	-	-	-	-	0.4 * 4	-	-	-	-	* * 4
<u>Torpedo nobiliana</u>	0.3 * 2	-	0.3 0.1 5	-	-	-	0.1 * 1	0.1 * 1	0.7 * 7	0.9 * 6	-	-	0.2 * 22
<u>Raja eglanteria</u>	1.1 * 9	1.5 0.1 17	1.2 0.1 7	1.5 0.2 16	-	-	-	-	6.0 0.1 60	2.3 * 16	0.5 * 4	0.9 * 8	1.4 0.1 137
<u>Dasyatis americana</u>	-	0.2 * 2	0.3 * 2	0.6 0.1 4	-	-	-	0.3 * 3	-	1.7 * 12	1.3 * 10	-	0.3 * 33
<u>Dasyatis centroura</u>	-	-	1.2 0.1 7	0.3 * 2	-	-	-	-	-	-	-	-	0.1 * 9
<u>Dasyatis sabina</u>	-	-	-	-	-	-	-	-	-	-	0.5 * 4	-	* * 4
<u>Gymnura micrura</u>	0.2 * 2	-	0.2 * 1	-	-	-	-	-	0.7 * 7	0.3 * 2	0.7 * 5	-	0.2 * 17
<u>Aetobatus parinari</u>	-	-	-	-	-	-	-	-	-	-	-	0.2 * 2	* * 2
<u>Rhinoptera bonasus</u>	0.1 * 1	-	0.7 * 4	-	-	-	-	-	0.2 * 2	0.1 * 1	-	-	0.1 * 8
<u>Acipenser oxyrhynchus</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Lepisosteus osseus</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Brevoortia</u> spp. (<u>tyrannus</u> and <u>smithi</u>)	0.9 * 8	69.2 4.7 657	73.3 4.2 440	6.5 0.5 42	0.7 0.3 2	-	0.4 * 6	1.8 0.1 20	-	2.9 0.1 20	0.5 * 4	1.4 * 12	12.8 0.5 1,211
<u>Opisthonema oglinum</u>	-	2.1 0.1 20	-	0.8 0.1 5	-	-	-	0.4 * 4	-	0.6 * 4	-	0.2 * 2	0.4 * 35
All other genera and species of herrings	0.1 * 1	-	0.3 * 2	-	-	-	-	-	3.6 0.1 36	0.7 * 5	9.1 0.2 68	2.4 0.1 20	1.4 0.1 132
<u>Anchoa</u> spp. (largely <u>mitschilli</u> and <u>hepsetus</u>)	8.0 0.2 68	15.8 1.1 150	14.7 0.8 88	18.3 1.4 119	2.3 0.9 7	28.3 7.7 85	0.6 0.1 9	3.8 0.2 42	1.2 * 12	0.6 * 4	-	5.6 0.2 48	6.7 0.3 632
<u>Synodus foetens</u>	1.2 * 10	-	0.3 * 2	0.9 0.1 6	2.0 0.8 6	4.7 1.3 14	1.0 0.1 14	2.5 0.1 28	-	-	0.8 * 6	0.9 * 8	1.0 * 94
<u>Trachinocephalus myops</u>	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 5.--Continued

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
<u>Bagre marinus</u>	146.1 4.3 1,242	4.6 0.3 44	19.0 1.1 114	5.1 0.4 33	0.3 0.1 1	1.7 0.5 5	1.4 0.1 19	2.5 0.1 28	692.8 15.4 6,928	138.9 2.5 972	186.1 3.4 1,326	80.1 2.1 681	121.3 4.5 11,463
<u>Galeichthys felis</u>	4.9 0.2 42	-	29.0 1.7 174	13.7 1.1 89	0.3 0.1 1	0.3 0.1 1	6.0 0.6 84	33.6 1.7 370	24.0 2.8 1,240	98.9 1.8 692	41.6 0.8 312	3.3 0.1 28	32.1 1.2 3,933
<u>Ophichthus</u> spp.	-	0.1 *	-	0.2 *	-	-	-	-	-	-	-	-	*
		1		1									
<u>Urophycis</u> spp.	2.1 *	25.8 1.7	39.0 2.2	20.9 1.6	-	-	-	-	-	-	-	-	6.5 0.2
	1	245	234	136									616
<u>Fistularia tabacaria</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Hippocampus</u> spp.	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Syngnathus</u> spp.	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Centropristis striatus</u>	0.2 *	0.3 *	1.3 0.1	1.5 0.1	0.7 0.3	-	1.4 0.1	15.3 0.8	2.0 *	1.7 *	-	-	2.6 0.1
	2	3	8	10	2		19	168	20	12			244
<u>Centropristis philadelphicus</u>	14.8 0.4 126	2.0 0.1 19	17.0 1.0 102	2.5 0.2 16	8.3 3.2 25	3.3 0.9 10	40.1 4.0 561	86.9 4.3 956	50.2 1.1 502	45.1 0.8 316	37.3 0.7 280	32.2 0.9 274	33.7 1.2 3,167
<u>Diplectrum formosum</u>	-	-	0.3 *	-	-	-	-	-	-	-	-	-	*
			2										2
<u>Lobotes surinamensis</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Pomatomus saltatrix</u>	0.1 *	0.1 *	1.0 0.1	0.3 *	-	0.7 0.2	-	-	0.4 *	-	0.5 *	-	0.2 *
	1	1	6	2		2			4		4		20
<u>Rachycentron canadum</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Caranx crysos</u>	1.9 0.1 16	-	-	-	0.3 0.1	-	0.1 *	-	8.0 0.2 80	0.6 *	1.1 *	1.6 *	1.3 0.1
					1		2			4	8	14	125
<u>Caranx</u> spp.	1.1 *	-	-	-	-	-	-	-	0.2 *	-	-	-	0.1 *
	9								2				11
<u>Chloroscombrus chrysurus</u>	331.1 9.8 2,814	4.0 0.3 38	15.3 0.9 92	49.8 3.8 324	73.0 27.8 219	79.7 21.6 239	58.1 5.7 813	138.9 6.8 1,528	262.8 5.9 2,628	624.6 11.1 4,372	458.1 8.4 3,436	1,107.3 29.5 9,412	274.8 10.1 25,915
<u>Decapterus punctatus</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Selene vomer</u>	10.4 0.3 88	-	-	-	-	1.3 0.4	0.4 *	-	-	-	1.6 *	3.3 0.1	1.4 0.1
						4	5				12	28	137
<u>Trachinotus</u> spp.	0.5 *	-	-	-	-	-	-	-	-	-	0.5 *	-	0.1 *
	4										4		8
<u>Trachurus lathami</u>	-	-	-	-	-	-	0.4 *	-	-	-	-	-	0.1 *
							5						5
<u>Vomer setapinnis</u>	131.8 3.9 1,120	10.2 0.7 97	24.3 1.4 146	3.2 0.3 21	1.3 0.5 4	9.7 2.6 29	1.1 0.1 15	11.6 0.6 128	80.4 1.8 804	328.6 5.8 2,300	271.2 5.0 2,034	443.4 11.8 3,769	110.8 4.1 10,467
<u>Eucinostomus</u> spp.	-	-	0.2 *	0.3 *	5.7 2.2	-	1.4 0.1	1.0 0.1	-	-	0.5 *	3.8 0.1	0.9 *
			1	2	17		19	11			4	32	86

Table 5.--Continued

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
<u>Haemulon aurolineatum</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Orthopristis chrysopterus</u>	2.4 1.1 20	.. * -	5.0 0.3 36	0.9 0.1 6	4.3 1.7 13	1.3 1.1 1	0.7 0.1 10	11.6 1.6 128	14.8 0.3 148	13.4 0.4 164	1.1 * 16	0.9 * 8	5.8 0.2 552
<u>Bairdiella chrysura</u>	6.0 0.2 51	2.1 0.2 31	5.0 0.3 30	7.7 0.6 50	-	5.7 1.5 17	3.6 0.4 50	4.9 0.2 54	0.8 * 8	12.1 1.1 84	11.7 0.2 88	1.8 0.1 24	5.0 0.2 477
<u>Cynoscion nebulosus</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Cynoscion nothus</u>	296.6 8.8 4,521	94.3 6.3 886	161.5 4.3 469	500.8 38.4 1,254	17.0 1.7 100	86.1 21.7 240	52.9 5.2 7,401	197.9 9.7 4,177	325.5 7.3 3,256	253.1 4.5 1,772	492.3 9.0 1,842	611.8 16.3 5,200	262.2 9.6 24,776
<u>Cynoscion regalis</u>	137.1 4.1 1,165	35.1 1.4 143	35.8 0.1 215	35.6 3.0 251	-	0.7 0.3 2	4.7 0.5 66	16.2 0.8 170	68.9 1.5 689	70.3 1.3 492	67.1 1.2 504	54.7 1.5 465	40.2 1.7 4,370
<u>Equetus acuminatus</u>	-	-	-	-	-	0.3 0.1 1	-	-	-	-	-	-	* * 1
<u>Equetus lanceolatus</u>	-	-	-	-	-	0.3 0.1 1	-	-	-	-	-	-	* * 1
<u>Larimus fasciatus</u>	51.8 1.5 440	29.9 2.0 284	15.2 1.4 151	69.1 5.3 449	15.3 5.8 46	17.0 4.6 51	3.0 0.3 42	26.4 1.3 290	27.2 0.6 272	52.2 0.9 364	170.1 3.1 1,276	61.1 1.6 519	44.3 1.6 4,184
<u>Leiostomus xanthurus</u>	218.5 6.5 1,557	230.7 15.6 1,192	134.7 7.7 806	60.0 4.6 390	9.3 3.6 28	44.3 12.0 133	208.8 20.6 2,923	166.7 8.2 1,834	123.2 2.7 1,232	214.9 3.8 1,504	180.8 3.3 1,356	57.5 1.5 489	156.0 5.7 14,746
<u>Menticirrhus</u> spp. (largely <u>americanus</u>)	186.0 5.5 1,561	134.2 9.1 1,275	116.8 6.7 701	248.4 19.1 1,615	1.3 1.3 10	1.3 0.4 4	28.1 2.8 394	60.3 3.0 663	286.0 6.4 2,860	754.3 13.4 5,280	448.3 8.2 3,362	123.3 3.3 1,048	198.9 7.3 18,793
<u>Microgogon undulatus</u>	190.8 5.7 1,622	25.7 1.7 244	16.8 1.0 101	20.0 1.5 130	85.0 32.4 255	43.3 11.7 130	367.6 36.3 5,147	814.4 39.8 8,958	1,018.8 22.7 10,188	604.0 10.7 4,228	1,198.1 21.9 8,986	587.8 15.6 4,996	476.0 17.5 44,985
<u>Pogonias cromis</u>	-	0.1 * 1	-	-	-	-	-	-	-	0.3 * 2	-	-	* * 3
<u>Stellifer lanceolatus</u>	1,482.6 43.9 12,602	620.7 42.0 5,897	925.5 53.0 5,553	133.7 10.3 869	-	13.3 3.6 40	165.7 16.4 2,320	315.7 15.4 3,473	1,212.6 27.0 12,126	2,169.1 38.5 15,184	1,642.7 30.0 12,320	325.2 8.7 2,764	774.1 28.4 73,148
<u>Mullus auratus</u>	-	-	-	-	0.7 0.3 2	-	-	-	-	-	-	-	* * 2
<u>Legodon rhomboides</u>	1.6 0.1 14	-	0.7 * 4	0.6 0.1 4	4.0 1.5 12	-	2.1 0.2 29	3.6 0.2 40	0.8 * 8	0.6 * 4	4.3 0.1 32	4.2 0.1 36	1.9 0.1 183
<u>Stenotomus</u> spp.	0.5 * 4	-	-	-	-	-	-	-	-	-	-	0.7 * 6	0.1 * 10
<u>Chaetodipterus faber</u>	15.1 0.5 128	16.2 1.1 154	10.0 0.6 60	6.6 0.5 43	7.3 2.8 22	0.7 0.2 2	-	0.1 * 1	3.2 0.1 32	35.4 0.6 248	66.1 1.2 496	81.1 2.2 689	19.8 0.7 1,875
<u>Xyrichtys</u> spp.	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Trichiurus lepturus</u>	64.7 1.9 550	38.4 2.6 365	12.3 0.7 74	13.8 1.1 90	-	3.3 0.9 10	15.2 1.5 213	20.2 1.0 222	35.8 0.8 358	24.6 0.4 172	31.5 0.6 236	70.8 1.9 602	30.6 1.1 2,892
<u>Scomberomorus maculatus</u>	-	-	-	-	-	-	-	-	-	-	0.1 * 1	-	* * 1
<u>Gobionellus oceanicus</u>	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 5.--Continued

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
<u>Scorpaena</u> spp.	-	-	-	-	-	-	-	-	-	-	-	0.1	*
												1	1
<u>Prionotus</u> spp.	0.5	7.0	.6	4.0	3.7	4.7	14.5	26.8	6.4	11.0	2.6	-	9.1
	*	.5	*	.4	1.4	1.5	1.4	1.8	1.2	.1	*	-	3.3
	4	71		30	11	14	237	405	64	20	0		852
<u>Astroscoptes y-graecum</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Hypsoblennius</u> spp.	-	0.1	-	-	-	-	-	-	-	-	-	-	*
		1											1
<u>Rissoia marginata</u>	-	-	-	-	-	-	-	-	-	-	-	0.4	*
												*	*
												1	3
<u>Peprilus alepidotus</u>	26.9	52.1	17.2	1.1	-	0.1	1.0	4.8	5.2	15.4	16.7	18.4	14.9
	0.8	3.5	1.0	0.1	-	0.1	1.2	1.9	0.1	1.1	0.3	0.5	0.6
	229	495	103	7		1	22	100	52	100	120	161	1,406
<u>Poronotus triacanthus</u>	4.7	15.4	8.5	19.5	3.3	18.7	0.4	11.	5.2	2.4	1.5	32.9	9.7
	0.1	1.0	0.5	1.5	1.3	5.1	*	0.5	0.1	0.1	*	0.9	0.4
	40	140	51	127	10	56	5	121	52	24	4	280	916
<u>Sphyræna</u> spp.	-	-	-	-	-	-	-	0.1	-	0.1	-	-	*
(largely <u>guachancho</u>)								1		2			3
<u>Mugil cephalus</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Polydactylus octonemus</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Ancylopsetta quadrocellata</u>	-	0.2	0.5	0.9	2.0	0.7	0.6	1.5	0.4	-	-	-	0.5
		*	*	0.1	0.8	0.2	0.1	0.1	*				*
		2	3	6	6	2	8	16	4				47
<u>Citharichthys</u> spp.	-	0.2	-	-	0.3	0.3	0.9	1.5	-	2.9	0.5	0.5	0.5
(largely <u>spilopterus</u>)		*			0.1	0.1	0.1	0.1		0.1	*	*	*
		2			1	1	12	16		20	4	4	60
<u>Etropus crossotus</u>	24.1	25.2	21.3	12.5	3.7	1.7	8.1	14.9	36.8	25.1	35.2	6.1	19.1
	0.7	1.7	1.2	1.0	1.4	0.5	0.8	0.7	0.6	0.5	0.6	0.2	0.7
	205	239	128	81	11	5	113	164	368	176	264	52	1,800
<u>Paralichthys dentatus</u>	-	0.2	-	0.8	-	-	1.0	1.8	1.8	2.9	2.1	0.2	1.0
		*		0.1	-	-	0.1	0.1	*	1.1	*	*	*
		2		5			14	20	18	20	10	2	97
<u>Paralichthys lethostigma</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Scophthalmus aquosus</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Syngnathus</u> spp.	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Bothus ocellatus</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Trinectes maculatus</u>	2.0	4.4	0.7	32.0	-	1.3	16.5	26.9	74.8	108.0	56.0	14.7	30.2
	0.1	0.3	*	2.5	-	0.4	1.6	1.3	1.7	1.9	1.0	0.4	1.1
	17	42	4	208		4	231	296	748	756	420	125	2,861
<u>Symphurus</u> spp.	4.1	8.9	6.0	2.7	-	-	2.6	1.8	8.0	7.4	16.0	5.2	5.6
(largely <u>plagiatus</u>)	0.1	0.6	0.3	0.3	-	-	0.3	0.1	0.2	0.1	0.3	0.1	0.2
	35	85	36	24			37	20	80	52	120	44	533
<u>Echeneis naucrates</u>	-	-	-	-	0.3	-	-	-	-	-	-	-	*
					0.1	-	-	-	-	-	-	-	*
					1								1
<u>Balistes</u> spp.	-	-	-	-	-	-	-	-	0.4	-	-	-	*
									*				*
									4				4

Table 5.--Continued

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
<u>Alutera schoepfii</u>	-	-	0.5 * 3	-	-	-	-	-	-	-	-	-	* * 3
<u>Stephanolepis</u> spp.	-	-	-	-	1.7 0.3 2	-	-	0.7 * 3	1.2 * 12	1.1 * 8	0.5 * 4	-	0.4 * 34
<u>Acanthostracion</u> spp. (largely <u>quadricornis</u>)	-	-	-	-	0.3 0.1 1	-	-	-	-	-	-	-	* * 1
<u>Lagocephalus laevigatus</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Sphaeroides</u> spp.	-	-	-	-	-	-	-	-	-	-	-	0.2 * 2	* * 2
<u>Chilomycterus schoepfi</u>	-	0.3 * 3	0.7 * 4	-	-	-	-	-	-	-	-	0.5 * 4	0.1 * 11
<u>Opsanus tau</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Porichthys porosissimus</u>	-	-	-	-	-	-	-	0.1 * 1	1.2 * 12	-	-	0.2 * 2	0.2 * 15
<u>Ogcocephalus</u> spp. (largely <u>vespertilio</u>)	0.1 * 1	-	-	-	-	-	-	-	-	-	-	0.9 * 8	0.1 * 9
Total	3,376.3 100.0 28,698	1,479.1 99.7 14,053	1,746.7 100.0 10,481	1,303.1 99.8 8,471	261.5 100.4 788	369.2 100.5 1,108	1,012.1 99.8 20,825	2,044.5 100.2 22,491	4,392.5 99.9 44,925	5,637.7 100.1 39,462	5,470.2 99.7 41,030	3,756.7 100.0 31,934	2,725.9 100.1 257,605

Table 6.--Fish taken by trawling, Georgia Inside and Georgia Outside combined, M/V Launch 58, 1931-35, catch per unit of effort (75-foot shrimp trawl at 2 to 3 knots) by months for all years and stations combined

[Upper figure, number of fish per hour of hauling; middle figure, percent of total catch; and lower figure, total number of fish; asterisk indicates value less than 0.05]

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
<u>Carcharhinus</u> spp.	-	*	-	*	-	0.3	*	*	*	*	-	-	*
		1		3		15	2	1	2	2			26
<u>Scoliodon terraenovae</u>	0.1	*	-	*	0.7	3.8	3.0	0.4	0.1	0.6	*	*	0.7
	*	-	-	*	0.1	0.3	0.2	*	*	*	*	*	0.1
	2			3	47	229	186	35	5	37	1	2	547
<u>Sphyrna tiburo</u>	0.2	0.1	0.1	1.0	0.7	1.3	0.4	0.2	1.1	0.7	2.0	0.2	0.6
	*	*	*	0.1	0.1	0.1	*	*	0.1	*	0.1	*	*
	6	4	4	83	53	80	22	18	90	43	70	8	481
<u>Sphyrna zygaena</u>	-	-	*	-	0.1	0.9	1.5	0.6	0.3	0.1	-	-	0.3
			1		*	0.1	0.1	*	*	*			*
					4	54	94	50	26	7			236
<u>Pristis pectinatus</u>	-	-	-	-	-	-	-	-	*	-	-	-	*
									1				1
<u>Rhinobatos lentiginosus</u>	-	-	-	-	*	*	-	0.1	*	*	-	-	*
					1	2		4	2				9
<u>Torpedo nobiliana</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Raja eglanteria</u>	5.0	1.6	0.8	1.0	0.4	-	*	*	0.1	3.0	4.6	11.9	1.8
	0.4	0.2	0.1	0.1	*	-	*	*	*	0.2	0.2	0.5	0.1
	198	101	55	85	29		2	3	5	181	158	543	1360
<u>Dasyatis americana</u>	0.2	0.1	0.1	1.8	0.6	0.5	3.0	0.8	0.5	0.6	1.1	0.6	0.8
	*	*	*	0.1	0.1	*	0.2	0.1	*	*	*	*	0.1
	8	8	9	147	40	27	183	60	45	37	38	29	631
<u>Dasyatis centroura</u>	-	-	-	*	-	-	-	-	-	-	-	-	*
				2									2
<u>Dasyatis sabina</u>	2.5	1.0	0.7	4.0	5.4	4.7	2.0	3.4	2.3	3.5	5.2	17.4	4.0
	0.2	0.1	0.1	0.3	0.5	0.4	0.1	0.2	0.1	0.2	0.2	0.7	0.3
	98	65	49	331	388	279	123	263	191	211	179	797	2,974
<u>Gymnura micrura</u>	-	*	-	0.6	1.7	1.1	2.0	0.7	0.7	0.5	0.1	0.2	0.7
		2		48	122	63	123	51	57	28	4	8	506
<u>Aetobatus narinari</u>	-	0.1	-	*	-	-	*	-	-	-	-	*	*
		9		3			1					2	15
<u>Rhinoptera bonasus</u>	-	0.4	1.7	0.2	1.0	0.3	0.6	0.1	0.4	0.2	-	0.1	0.5
		0.1	0.2	*	0.1	*	*	*	*	*		*	*
		29	114	17	72	19	37	10	29	11		4	342
<u>Acipenser oxyrhynchus</u>	-	*	-	-	-	-	-	-	-	-	-	0.2	*
		2										*	*
												8	10
<u>Lepisosteus osseus</u>	-	-	*	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
			*	*	*	*	*	*	*	*	*	*	*
			2	25	18	9	9	11	8	6	4	5	97
<u>Brevoortia</u> spp. (<u>tyrannus</u> and <u>smithi</u>)	79.1	160.6	39.3	7.8	15.0	12.6	5.5	1.7	0.6	0.9	1.8	9.7	26.4
	5.7	19.9	4.6	0.6	1.4	1.1	0.3	0.1	*	0.1	0.1	0.4	1.8
	3,143	10,438	2,695	650	1,074	748	335	129	46	52	60	445	19,815
<u>Opisthonema oglinum</u>	14.1	1.7	*	0.1	0.1	1.5	0.3	0.1	-	0.1	-	0.6	1.1
	1.0	0.2	*	*	*	0.1	*	*	-	*	-	*	0.1
	560	112	1	6	5	91	18	5		4		26	828
All other genera and species of herrings	1.0	0.8	0.3	-	0.4	0.1	*	*	0.1	-	-	*	0.2
	0.1	0.1	*	-	*	*	*	*	*	-	-	*	*
	38	50	20		32	4	2	2	6			2	156
<u>Anchoa</u> spp. (largely <u>mitchilli</u> and <u>hepsetus</u>)	40.6	22.8	36.9	59.4	30.2	28.6	7.3	5.9	18.9	70.4	116.2	51.8	36.7
	3.0	2.8	4.3	4.9	2.9	2.5	0.4	0.4	1.0	3.9	4.9	2.1	2.5
	1,615	1,483	2,531	4,941	2,168	1,702	448	462	1,557	4,257	3,980	2,369	27,513
<u>Synodus foetens</u>	0.2	*	-	0.3	0.6	1.0	1.0	1.2	0.5	1.9	5.7	1.3	0.9
	*	*	-	*	0.1	0.1	0.1	0.1	*	0.1	0.2	0.1	0.1
	8	1		28	46	60	59	90	39	117	194	61	703
<u>Trachinocephalus myops</u>	-	-	-	-	-	-	-	-	0.1	-	-	-	*
									*				*
									6				6

Table 6.--Continued

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
<u>Bagre marinus</u>	-	-	* 3	5.8 0.5 480	29.0 2.8 2,079	32.8 2.9 1,953	21.0 1.3 1,278	71.7 4.4 5,596	121.1 6.5 3,463	62.6 3.5 3,788	53.8 2.2 1,841	0.1 * 6	36.0 2.5 26,987
<u>Galeichthys felis</u>	1.4 0.1 56	* * 1	0.3 * 21	41.1 3.4 3,425	62.9 6.1 4,513	81.7 7.2 4,864	52.9 3.2 3,225	107.3 6.6 8,369	36.1 2.0 2,977	19.4 1.1 1,174	15.6 0.6 533	2.1 0.1 94	39.0 2.7 29,252
<u>Ophichthus</u> spp.	-	* 1	-	-	-	-	-	* 1	* 1	-	-	* 1	* 4
<u>Urophycis</u> spp.	4.1 0.3 162	66.0 8.2 4,293	131.8 15.2 9,026	25.2 2.1 2,095	1.5 0.1 105	-	-	-	-	-	-	* * 2	20.9 1.4 15,683
<u>Fistularia tabacaria</u>	-	-	-	-	-	-	-	-	* 2	-	-	-	* 2
<u>Hippocampus</u> spp.	* * 1	-	* * 1	-	-	-	* * 1	-	-	-	-	-	* * 3
<u>Syngnathus</u> spp.	0.1 * 2	0.1 * 4	* * 1	-	-	-	-	0.1 * 5	-	-	-	* * 1	* * 13
<u>Centropristis striatus</u>	1.4 0.1 57	0.3 * 22	0.2 * 14	0.8 0.1 63	0.4 * 30	0.3 * 17	* * 1	0.2 * 13	0.1 * 11	0.3 * 21	0.6 * 20	0.2 * 11	0.4 * 280
<u>Centropristis philadelphicus</u>	0.5 * 18	0.3 * 19	0.1 * 8	0.1 * 8	0.1 * 4	-	* * 1	* * 3	0.5 * 45	3.1 0.2 187	5.8 0.2 198	1.6 0.1 71	0.7 0.1 562
<u>Diplectrum formosum</u>	-	-	-	-	0.4 * 28	0.1 * 4	0.3 * 20	0.6 * 48	3.2 0.2 260	-	0.1 * 2	-	0.5 * 362
<u>Lobotes surinamensis</u>	-	-	-	* * 1	* * 2	* * 2	* * 3	* * 1	-	-	-	-	* * 9
<u>Pomatomus saltatrix</u>	2.5 0.2 99	2.1 0.3 134	0.7 0.1 49	0.2 * 19	1.4 0.1 103	0.3 * 20	0.1 * 5	* * 2	-	0.1 * 7	2.4 0.1 83	2.8 0.1 129	0.9 0.1 650
<u>Rachycentron canadum</u>	-	-	-	-	-	-	-	-	-	* 1	-	-	* 1
<u>Caranx crysos</u>	-	-	* 2	* 1	* 2	0.2 * 13	0.5 * 29	0.7 * 54	1.0 0.1 82	0.9 0.1 56	-	0.1 * 4	0.3 * 243
<u>Caranx</u> spp.	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Chloroscombrus chrysurus</u>	66.9 4.9 2,661	27.6 3.4 1,792	6.8 0.8 467	0.4 * 36	17.8 1.7 1,276	44.1 3.9 2,624	66.7 4.1 4,069	88.4 5.4 6,898	120.7 6.5 9,327	36.8 2.1 2,227	62.4 2.6 2,137	31.9 1.3 1,460	47.5 3.3 35,574
<u>Deceperus punctatus</u>	-	-	-	-	-	-	* 1	-	-	-	-	-	* 1
<u>Selene vomer</u>	0.4 * 14	0.2 * 16	-	* * 1	* * 1	2.6 0.2 156	5.4 0.3 327	3.4 0.2 264	2.8 0.2 234	9.4 0.5 570	3.6 0.1 122	0.5 * 24	2.3 0.2 1,729
<u>Trachinotus</u> spp.	-	-	-	-	* * 3	-	0.3 * 18	1.3 0.1 98	* * 2	0.1 * 9	* * 1	-	0.2 * 131
<u>Trachurus lathami</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Vomer setapinnis</u>	0.6 * 22	0.3 * 18	0.4 * 24	0.3 * 23	2.1 0.2 151	0.3 * 20	0.2 * 14	3.7 0.2 286	6.8 0.4 556	7.1 0.4 431	50.9 2.1 1,744	52.3 2.1 2,395	7.6 0.5 5,684
<u>Eucinostomus</u> spp.	-	-	-	-	-	-	-	0.1 * 5	0.4 * 32	0.2 * 13	1.7 0.1 57	0.1 * 3	0.1 * 110

Table 6.--Continued

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
<u>Haemulon aurolineatum</u>	-	-	-	-	-	-	1.2 * 12	-	-	-	-	-	* *
<u>Orthopristis chrysopterus</u>	0.5 * 20	-	-	* 1	-	* 1	1.2 0.1 118	0.5 *	0.4 1.2 283	0.5 *	0.6 *	* *	0.7 0.1 513
<u>Rairdiella chrysur</u>	10.2 0.7 406	3.7 0.5 251	4.6 0.5 316	18.1 1.5 1,507	9.7 0.9 698	5.0 0.4 297	6.4 0.4 392	3.9 0.2 306	6.2 0.3 514	12.8 0.6 655	6.8 0.3 234	15.4 0.6 706	8.4 0.6 1,282
<u>Cynoscion nebulosus</u>	0.4 * 17	0.1 * 8	* * 2	0.1 * 10	0.5 * 35	0.6 0.1 38	1.0 0.1 63	0.4 *	0.4 *	0.1 *	0.3 *	0.5 *	0.4 * 278
<u>Cynoscion nothus</u>	0.4 * 16	* * 1	* * 1	2.6 0.2 219	5.0 0.5 359	3.4 0.3 202	7.2 0.4 441	23.2 0.4 2,560	47.7 2.6 3,226	.7 *	8.1 0.3 279	6.9 0.3 315	11.2 0.8 3,392
<u>Cynoscion regalis</u>	54.4 4.0 2,163	29.3 3.6 1,905	11.9 1.4 815	77.4 0.3 6,442	34.5 3.3 2,475	40.0 3.5 2,379	70.8 4.3 4,316	91.1 5.6 7,199	71.8 3.9 5,908	74.6 4.2 4,511	54.9 2.3 1,860	87.9 3.6 4,321	58.6 4.0 43,924
<u>Equetus acuminatus</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Equetus lanceolatus</u>	-	-	-	-	-	-	0.1 * 4	-	-	-	-	-	* * 4
<u>Larimus fasciatus</u>	4.6 0.3 181	1.6 0.2 106	1.7 0.2 117	3.2 0.3 264	6.2 0.6 447	3.8 0.3 227	6.6 0.4 403	19.5 1.2 1,522	28.8 1.6 2,371	13.6 0.8 821	42.8 1.8 1,467	5.6 0.2 257	10.9 0.8 6,153
<u>Leiostomus xanthurus</u>	134.0 9.7 5,328	166.1 20.5 10,794	224.0 25.9 15,342	268.6 22.0 22,361	89.2 8.6 6,399	60.6 5.3 3,608	105.9 6.4 6,457	40.0 2.5 3,119	30.9 1.7 2,545	18.5 1.0 1,118	33.4 1.4 1,145	182.6 7.5 8,355	115.5 7.9 80,571
<u>Menticirrhus spp.</u> (largely americanus)	174.5 12.7 6,936	78.9 9.8 5,128	32.5 3.8 2,228	46.5 3.8 3,870	11.9 1.2 856	13.3 1.2 790	21.6 1.3 1,320	36.0 2.2 2,811	45.6 2.5 3,748	105.3 5.9 6,369	162.0 6.8 5,549	137.4 5.6 6,288	61.2 4.2 45,893
<u>Micropogon undulatus</u>	54.6 4.0 2,170	3.0 0.4 197	3.9 0.4 266	15.9 1.3 1,320	82.4 8.0 5,913	244.4 21.5 14,544	295.3 17.9 18,015	290.6 17.8 22,664	312.3 16.8 25,685	118.8 6.7 7,185	53.4 2.2 1,828	17.2 0.7 786	134.2 9.2 100,573
<u>Pogonia cromis</u>	-	-	* 1	-	-	-	-	-	* * 1	* * 1	0.1 * 4	* * 2	* * 9
<u>Stellifer lanceolatus</u>	535.7 38.9 21,295	138.9 17.2 9,028	246.0 28.4 16,852	430.5 35.2 35,836	413.8 39.9 29,691	422.8 37.3 25,156	822.1 50.0 50,146	695.9 42.7 54,283	833.1 44.9 68,521	1,021.5 57.3 61,798	1,423.6 59.4 48,758	1,414.5 58.0 64,715	648.5 44.5 486,079
<u>Mullus auratus</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Lagodon rhomboides</u>	0.1 * 2	0.5 0.1 30	-	* * 1	10.5 1.0 752	1.1 0.1 67	7.9 0.5 483	* *	-	0.4 *	1.0 *	0.3 *	1.9 0.1 1,411
<u>Stenotomus spp.</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Chaetodipterus faber</u>	-	-	* * 2	0.5 * 45	6.6 0.6 473	7.1 0.6 423	2.1 0.1 127	21.4 1.3 1,669	16.9 0.9 1,389	6.9 0.4 418	1.2 * 40	* *	6.1 0.4 4,587
<u>Xyrichtys spp.</u>	-	-	-	0.3 * 24	1.7 0.2 124	0.6 0.1 37	1.2 0.1 76	1.4 0.1 109	2.8 0.2 228	-	0.1 *	-	0.8 0.1 600
<u>Trichiurus lepturus</u>	24.4 1.8 969	11.4 1.4 742	23.1 2.7 1,584	24.8 2.0 2,061	52.2 5.0 3,742	42.6 3.8 2,536	46.2 2.8 2,818	21.1 1.3 1,646	6.8 0.4 559	5.9 0.3 356	16.6 0.7 570	37.0 1.5 1,695	25.7 1.8 19,278
<u>Scomberomorus maculatus</u>	0.1 * 2	0.1 * 5	-	* * 1	* * 1	-	* * 2	0.1 *	0.2 *	0.2 *	1.6 0.1 56	0.3 *	0.2 *
<u>Gobionellus oceanicus</u>	-	-	-	-	* 2	-	* 2	-	-	-	-	-	* 4

Table 6.--Continued

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
<u>Scorpaena</u> spp.	0.1 * 2	-	-	-	-	-	-	-	* * 2	-	0.1 * 2	-	* * 6
<u>Prionotus</u> spp.	4.0 0.3 159	2.3 0.3 153	3.2 0.4 219	11.7 1.0 970	8.5 0.9 610	9.5 0.8 566	4.6 0.3 277	2.9 0.1 223	2.3 0.1 193	5.0 0.3 300	8.3 0.4 285	8.4 0.4 384	5.8 0.4 4,339
<u>Astroscoptes y-graecum</u>	1.2 0.1 48	0.4 0.1 26	0.3 * 19	0.6 * 48	0.8 0.1 60	0.6 0.1 36	0.4 * 24	0.1 * 4	0.1 * 8	0.1 * 4	0.1 * 4	1.1 * 49	0.4 * 330
<u>Hypsoblennius</u> spp.	0.1 * 3	-	* * 3	* * 2	* * 1	-	* * 1	-	-	-	0.1 * 2	-	* * 12
<u>Rissola marginata</u>	* * 1	-	-	* * 4	-	* * 2	-	-	-	-	0.1 * 2	0.1 * 4	* * 13
<u>Peprilus alepidotus</u>	9.7 0.7 385	5.1 0.6 333	10.6 1.2 724	38.9 3.2 3,242	68.9 6.6 4,942	22.0 1.9 1,307	8.1 0.5 495	6.7 0.4 519	9.3 0.5 763	10.7 0.6 646	8.2 0.3 282	21.6 0.9 989	19.5 1.3 14,627
<u>Poronotus triacanthus</u>	8.8 0.6 350	11.7 1.4 758	11.4 1.3 781	11.6 0.9 965	18.3 1.8 1,316	4.0 0.4 239	1.4 0.1 85	2.3 0.1 183	23.5 1.3 1,930	8.9 0.5 538	9.9 0.4 338	15.5 0.6 709	10.9 0.8 8,192
<u>Sphyræna</u> spp. (largely <u>guachancho</u>)	* * 1	-	-	-	-	* * 2	-	-	* * 1	1.2 0.1 71	-	-	0.1 * 75
<u>Mugil cephalus</u>	-	-	-	-	-	-	-	-	-	-	0.3 * 11	* * 1	* * 12
<u>Polydactylus octonemus</u>	-	-	-	-	-	* * 1	-	-	-	-	-	-	* * 1
<u>Ancylorsetta quadrocellata</u>	1.4 0.1 55	0.8 0.1 55	1.6 0.2 107	5.9 0.5 488	2.4 0.2 169	1.6 0.2 98	0.5 * 29	0.4 * 29	0.2 * 17	0.1 * 6	0.4 * 13	0.1 * 5	1.4 0.1 1,071
<u>Citharichthys</u> spp. (largely <u>spilopterus</u>)	0.5 * 21	0.2 * 14	0.1 * 6	* * 1	0.6 0.1 43	1.6 0.1 93	3.0 0.2 180	1.1 0.1 84	1.1 0.1 92	0.6 * 34	1.5 0.1 52	2.9 0.1 131	1.0 0.1 751
<u>Etropus crossotus</u>	109.4 7.9 4,348	52.8 6.5 3,429	47.7 5.5 3,268	65.0 5.3 5,410	8.1 0.8 582	2.1 0.2 123	7.3 0.4 443	11.4 0.7 887	31.2 1.7 2,564	89.3 5.0 5,403	157.6 6.6 5,399	216.2 8.9 9,891	55.7 3.8 41,747
<u>Paralichthys dentatus</u>	2.0 0.2 81	1.4 0.2 90	1.3 0.2 92	1.8 0.1 150	4.1 0.4 295	4.7 0.4 280	9.7 0.6 591	2.3 0.1 181	2.2 0.2 185	3.0 0.2 182	2.2 0.1 77	3.9 0.2 180	3.2 0.2 2,384
<u>Paralichthys lethostigma</u>	0.1 * 2	0.2 * 15	* * 1	-	-	-	-	-	-	0.5 * 29	0.4 * 15	0.3 * 13	0.1 * 75
<u>Scophthalmus aquosus</u>	1.1 0.1 42	4.0 0.5 263	12.8 1.5 879	10.3 0.8 858	8.9 0.9 636	0.7 0.1 40	1.4 0.1 87	0.1 * 10	0.2 * 18	2.0 0.1 119	3.2 0.1 109	1.3 0.1 60	4.2 0.3 3,121
<u>Syngnathus</u> spp.	-	-	-	-	-	0.1 * 6	-	0.2 * 19	0.4 * 36	-	-	-	0.1 * 61
<u>Bohus ocellatus</u>	-	-	-	-	-	* * 2	-	0.1 * 4	-	-	-	-	* * 6
<u>Trinectes maculatus</u>	5.0 0.4 200	2.7 0.3 177	1.1 0.1 77	8.4 0.7 701	11.5 1.1 824	21.3 1.9 1,270	33.5 2.0 2,041	51.4 3.2 4,012	33.9 1.8 2,789	36.2 2.0 2,191	28.7 1.2 983	20.5 0.8 937	21.6 1.5 16,202
<u>Symphurus</u> spp. (largely <u>plagiatus</u>)	18.2 1.3 724	6.9 0.9 448	6.7 0.8 426	27.9 2.3 2,325	6.0 0.6 432	1.1 0.1 64	3.2 0.2 195	3.0 0.2 232	7.7 0.4 632	21.9 1.2 1,326	28.2 1.2 965	51.9 2.1 2,375	13.6 0.9 10,180
<u>Echeneis naucratea</u>	-	-	-	-	* * 2	* * 1	* * 1	-	* * 1	-	-	-	* * 5
<u>Balistes</u> spp.	-	-	-	-	* * 1	-	* * 1	-	-	-	-	-	* * 2

Table 6.--Continued

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
<u>Alutera schoepfii</u>	-	-	-	*	*	0.1	0.1		0.1				*
				2	3	3	4	-	8	-	-	-	20
<u>Stephanolepis</u> spp.	-	-	-	0.1	1.5	0.1	0.4	1.1	16.4				2.1
				*	0.1	*	*	0.1	0.9	-	-	-	0.1
				5	105	5	26	88	1,348				1,577
<u>Acanthostracion</u> spp. (largely <u>quadricornis</u>)	-	-	-	-	*	-	-	-	-	-	-	-	*
					1								1
<u>Lagocephalus laevis</u>	-	-	-	-	*	-	0.1	0.1					*
					1		4	7					12
<u>Sphaeroides</u> spp.	-	-	*	*	*	-	*	*		0.1	0.1	*	*
			1	1	1		1	1	-	4	2	2	13
<u>Chilomycterus schoepfi</u>	1.2	0.1	0.3	0.9	0.4	0.4	0.9	0.7	1.1	3.5	4.1	2.0	1.1
	0.1	*	*	0.1	*	*	0.1	*	0.1	0.2	0.2	0.1	0.1
	46	9	19	75	28	21	53	52	91	209	140	92	835
<u>Opsanus tau</u>	0.4	*	*	1.2	0.2	0.1	0.4	0.1	*	0.1	0.1	0.2	0.3
	*	*	*	0.1	*	*	*	*	*	*	*	*	*
	14	3	2	98	17	6	27	7	3	9	4	8	198
<u>Porichthys porosissimus</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Ogcocephalus</u> spp. (largely <u>vespertilio</u>)	-	-	-	-	-	-	-	-	0.2	0.2	1.0	*	0.1
									*	*	*	*	*
									15	13	34	2	64
Total	1,378.0	808.5	865.0	1,223.2	1,037.2	1,134.4	1,645.1	1,631.9	1,855.3	1,783.8	2,394.7	2,437.1	1,453.1
	99.9	99.9	99.9	99.8	100.0	99.7	99.7	99.7	100.2	99.8	99.6	99.7	100.0
	54,755	52,573	59,283	101,831	74,432	67,526	100,396	127,282	152,627	107,917	82,024	111,538	1,092,184

Table 7.--Fish taken by trawling, South Carolina Outside, Georgia Outside and Florida Outside combined, M/V Launch 58, 1931-35, catch per unit of effort (75-foot shrimp trawl at 2 to 3 knots) by months for all years and stations combined

[Upper figure, number of fish per hour of hauling; middle figure, percent of total catch; and lower figure, total number of fish; asterisk indicates value less than 0.05]

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
<u>Carcharhinus</u> spp.	-	-	-	1	-	0.3	0.1	0.2	-	-	-	0.1	0.1
				*		*	*	*				*	*
				1		7	5	11				4	28
<u>Scoliodon terraenovae</u>	-	-	-	-	0.8	0.9	2.2	0.5	0.1	1.1	0.1	*	0.5
					0.1	0.1	0.2	*	*	*	*	*	*
					23	22	115	26	4	42	2	1	235
<u>Sphyrna tiburo</u>	1.3	0.1	0.1	0.3	0.8	0.8	0.2	0.4	0.6	1.0	4.8	1.5	0.9
	0.1	*	*	*	0.1	0.1	*	*	*	*	0.2	0.1	0.1
	44	6	4	10	22	20	12	18	25	38	152	62	413
<u>Sphyrna zygaena</u>	0.1		0.2	-	-	0.6	0.6	0.3	0.4	0.2	0.3	0.1	0.2
	*	-	*	-	-	0.1	*	*	*	*	*	*	*
	-		6			14	31	16	17	7	9	3	105
<u>Pristis pectinatus</u>	-	-	-	-	-	-	-	-	*	-	-	-	*
									1				1
<u>Rhinobatos lentiginosus</u>	-	-	-	-	*	0.1	-	0.2	*	-	-	-	*
					*	*	-	*	*	-	-	-	*
					1	2		8	2				13
<u>Torpedo nobiliana</u>	0.1		0.1	-	-	-	*	*	0.2	0.2	-	-	0.1
	*	-	*	-	-	-	*	*	*	*	-	-	*
	2		5				1	1	7	6			22
<u>Raja eglanteria</u>	3.8	2.4	1.8	2.8	0.7		0.2	0.1	1.5	4.5	3.5	9.6	2.6
	0.2	0.2	0.2	0.4	0.1	-	*	*	0.1	0.2	0.1	0.4	0.2
	128	130	68	108	19		11	3	69	177	111	389	1,213
<u>Dasysatis americana</u>	0.2	0.2	0.3	4.9	0.7	0.3	3.7	1.0	0.9	1.1	0.9	0.5	1.3
	*	*	*	0.6	0.1	*	0.3	0.1	*	*	*	*	0.1
	8	12	10	189	19	7	192	47	40	45	29	19	617
<u>Dasysatis centroura</u>	-	-	0.2	0.1	-	-	-	-	-	-	-	-	*
			*	*	-	-	-	-	-	-	-	-	*
			7	4									11
<u>Dasysatis sabina</u>	0.9	1.0	0.7	1.1	0.4	0.4	0.3	1.8	2.5	1.9	1.8	15.7	2.5
	*	0.1	0.1	0.1	*	0.1	*	0.1	0.1	0.1	0.1	0.6	0.1
	29	55	26	42	10	9	18	88	114	76	57	635	1,159
<u>Gymnura micrura</u>	0.2	*	*	0.5	0.5	0.3	1.7	0.2	0.9	0.9	0.5	0.2	0.5
	*	*	*	0.1	0.1	*	0.1	*	*	*	*	*	*
	6	2	1	18	14	6	91	11	39	37	17	9	251
<u>Aetobatus parinari</u>	-	0.1	-	*	-	-	*	-	-	-	*	0.1	*
		*	-	*	-	-	*	-	-	-	*	*	*
		8		1			1				1	5	16
<u>Rhinoptera bonasus</u>	*	0.5	3.1	0.1	1.1	*	0.2	0.2	0.4	0.3	-	0.1	0.5
	*	0.1	0.4	*	0.1	*	*	*	*	*	-	*	*
	1	29	116	5	32	1	12	8	20	10		4	238
<u>Acipenser oxyrinchus</u>	-	*	-	-	-	-	-	-	-	-	-	0.1	*
		2										*	*
												3	5
<u>Lepisosteus osseus</u>	-	-	-	-	-	-	-	*	*	*	-	-	*
								2	1	1			4
<u>Brevoortia</u> spp.	119.5	202.2	59.2	4.0	34.5	24.7	3.2	1.4	0.7	0.9	1.0	9.7	41.5
(<u>tyrannus</u> and <u>smithi</u>)	5.5	17.0	7.2	0.5	3.8	3.5	0.3	0.1	*	*	*	0.4	2.4
	4,063	10,873	2,219	154	965	592	164	67	33	36	31	392	19,589
<u>Opisthonema oglinum</u>	-	0.4	-	0.2	0.1	4.1	0.2	0.2	-	0.2	-	1.0	0.3
		*	-	*	*	0.6	*	*	-	*	-	*	*
		20		9	4	99	10	10		6		4	162
All other genera and species of herrings	0.1	0.3	0.2	-	1.0	0.2	*	*	0.8	0.1	2.2	0.5	0.4
	*	*	*	-	0.1	*	*	*	*	*	0.1	*	*
	2	14	8		28	4	1	1	36	5	68	22	189
<u>Anchoa</u> spp. (largely <u>mitchilli</u> and <u>hpesetus</u>)	25.3	31.4	53.1	24.7	36.0	35.5	4.4	5.5	15.7	33.2	45.8	32.6	26.7
	1.2	2.6	6.4	3.2	4.0	5.1	0.4	0.4	0.5	1.2	1.6	1.2	1.5
	859	1,690	1,990	946	1,009	851	228	266	712	1,313	1,441	1,321	12,626
<u>Synodus foetens</u>	0.3	*	0.1	0.9	1.9	2.8	1.2	2.5	0.8	2.9	6.2	1.7	1.6
	*	*	*	0.1	0.2	0.4	0.1	0.2	*	0.1	0.2	0.1	0.1
	10	1	2	34	52	68	65	118	38	115	196	69	768
<u>Trachinocephalus myops</u>	-	-	-	-	-	-	-	-	0.1	-	-	-	*
									6				6

Table 7.--Continued

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
<u>Bagre marinus</u>	36.5 1.7 1,242	0.8 0.1 44	3.0 0.4 114	4.7 0.6 178	34.8 3.9 974	4.8 0.7 115	11.4 0.9 595	20.1 1.3 966	259.1 8.2 11,726	98.2 3.6 3,880	99.2 3.6 3,125	16.8 0.6 681	50.1 2.9 23,640
<u>Galeichthys felis</u>	2.4 0.1 82	- - -	4.8 0.6 180	13.2 1.7 506	6.0 0.7 168	4.8 0.7 116	19.8 1.6 1,032	37.3 2.4 1,793	52.6 1.7 2,382	34.8 1.3 1,376	23.5 0.8 740	3.0 0.1 122	18.0 1.0 6,497
<u>Ophichthus</u> spp.	-	* 2	-	* 1	-	-	-	-	-	-	-	* 1	* 4
<u>Urophycis</u> spp.	3.9 0.2 133	46.8 3.9 2,515	102.2 12.4 3,831	52.6 6.9 2,013	1.1 0.1 32	0.1 * 2	-	-	-	-	-	0.1 * 2	18.1 1.0 5,528
<u>Fistularia tabacaria</u>	-	-	-	-	-	-	-	-	* 2	-	-	-	* 2
<u>Hippocampus</u> spp.	* 1	-	* 1	-	-	-	* 1	-	-	-	-	-	* 3
<u>Syngnathus</u> spp.	-	* 2	* 1	-	-	-	-	0.1 5	-	-	-	-	* 8
<u>Centropristis striatus</u>	0.1 * 2	0.3 * 18	0.5 * 18	0.4 0.1 15	0.4 * 10	-	0.4 * 20	3.8 0.2 181	0.5 * 24	0.4 * 16	0.5 * 16	0.5 * 7	0.7 * 327
<u>Centropristis philadelphicus</u>	4.1 0.2 141	0.5 * 27	2.8 0.3 104	0.4 0.1 16	1.0 0.1 27	0.4 0.1 10	10.8 0.9 562	19.9 1.3 957	11.4 0.4 518	10.5 0.4 415	13.9 0.5 437	8.0 0.3 326	7.5 0.4 3,540
<u>Diplectrum formosum</u>	-	-	0.1 2	-	1.0 0.1 28	0.2 * 4	0.4 * 20	1.0 0.1 48	5.7 0.2 260	-	0.1 * 2	-	0.8 * 364
<u>Lobotes surinamensis</u>	-	-	-	-	* 1	* 1	-	-	-	-	-	-	* 2
<u>Pomatomus saltatrix</u>	0.4 * 12	0.1 * 6	0.9 0.1 32	0.2 * 6	0.3 * 8	0.7 0.1 17	-	-	0.1 * 4	* * 1	2.4 0.1 77	2.1 0.1 84	0.5 * 247
<u>Rachycentron canadum</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Caranx crysos</u>	0.5 * 16	-	0.1 * 2	-	0.1 * 3	0.4 0.1 9	1.0 0.1 50	3.3 0.2 157	4.5 0.1 202	1.0 * 40	0.3 * 8	0.4 * 18	1.1 0.1 505
<u>Caranx</u> spp.	0.3 * 9	-	-	-	-	-	-	-	* * 2	-	-	-	* * 11
<u>Chloroscombrus chrysurus</u>	153.4 7.1 5,215	30.2 2.5 1,623	11.4 1.4 429	9.0 1.2 346	26.0 2.9 728	90.4 12.9 2,170	91.4 7.5 4,755	150.3 9.8 7,217	256.8 8.1 11,620	154.0 5.7 6,081	170.0 6.1 5,350	256.1 9.3 10,372	118.4 6.8 55,906
<u>Decapterus punctatus</u>	-	-	-	-	-	-	* 1	-	-	-	-	-	* 1
<u>Selene vomer</u>	3.1 0.1 104	0.1 * 3	-	-	-	1.3 0.2 31	3.4 0.3 175	4.5 0.3 217	0.7 * 32	2.0 0.1 79	2.6 0.1 83	0.9 * 36	1.6 0.1 760
<u>Trachinotus</u> spp.	0.1 * 4	-	-	-	0.1 * 3	-	0.3 * 17	2.1 0.1 102	* * 2	0.2 * 9	0.2 * 5	-	0.3 * 142
<u>Trachurus lathami</u>	-	-	-	-	-	-	0.1 * 5	-	-	-	-	-	* * 5
<u>Vomer setapinnis</u>	33.8 1.6 1,148	2.1 0.2 115	4.5 0.5 169	1.2 0.2 44	2.1 0.2 60	2.1 0.3 51	0.5 * 25	7.8 0.5 375	25.8 0.8 1,167	67.2 2.5 2,654	119.6 4.3 3,768	153.1 5.6 6,201	33.4 1.9 15,777
<u>Eucinostomus</u> spp.	-	-	* 1	0.1 * 2	0.6 0.1 17	-	0.4 * 19	0.4 * 17	0.6 * 26	0.3 * 11	1.8 0.1 58	0.9 * 35	0.4 * 186

Table 7.--Continued

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
<u>Haemulon aurolineatum</u>	-	-	-	-	-	-	0.2 *	-	-	-	-	-	*
							12						12
<u>Orthopristis chrysopterus</u>	2.1 0.1 72	* * 2	1.0 0.1 36	0.2 * 6	0.5 0.1 13	0.1 * 3	0.5 * 25	3.0 0.2 142	9.1 0.3 410	4.9 0.2 194	1.3 0.1 40	0.2 * 9	2.0 0.1 952
<u>Bairdiella chrysura</u>	6.1 0.3 208	5.7 0.5 307	1.9 0.2 73	5.4 0.7 207	4.4 0.5 124	2.5 0.4 60	3.8 0.3 196	3.7 0.2 176	2.8 0.1 127	5.4 0.2 214	11.6 0.4 364	17.4 0.6 703	5.8 0.3 2,759
<u>Cynoscion nebulosus</u>	0.1 * 4	0.1 * 5	-	-	-	* * 1	0.4 * 21	0.1 * 6	0.2 * 10	-	* * 1	0.1 * 6	0.1 * 54
<u>Cynoscion nothus</u>	79.0 3.6 2,686	17.1 1.4 918	26.3 3.2 987	91.3 11.9 3,494	8.7 1.0 244	16.3 2.3 391	29.0 2.4 1,506	103.2 6.7 4,956	161.6 5.1 7,314	49.7 1.8 1,961	136.2 4.9 4,290	137.8 5.0 5,581	72.7 4.2 34,330
<u>Cynoscion regalis</u>	182.3 8.4 6,197	40.2 3.4 2,161	10.5 1.3 393	37.4 4.9 1,430	23.8 2.7 666	12.2 1.8 292	41.2 3.4 2,143	43.6 2.8 2,093	77.6 2.5 3,511	68.9 2.5 2,722	79.8 2.9 2,513	120.6 4.4 4,885	61.4 3.5 29,006
<u>Equetus acuminatus</u>	-	-	-	-	-	* 1	-	-	-	-	-	-	* 1
<u>Equetus lanceolatus</u>	-	-	-	-	-	* 1	0.1 * 4	-	-	-	-	-	* 5
<u>Larimus fasciatus</u>	24.4 1.1 831	7.5 0.6 405	7.8 0.9 292	18.1 2.4 694	17.4 1.9 488	13.0 1.9 311	15.5 1.3 804	40.3 2.6 1,934	58.3 1.9 2,637	32.2 1.2 1,270	93.8 3.4 2,953	24.1 0.9 975	28.8 1.6 13,594
<u>Leiostomus xanthurus</u>	342.4 15.8 11,641	342.2 28.7 18,398	131.5 15.9 4,333	25.3 3.3 967	163.2 18.1 4,571	22.4 3.1 537	100.6 8.3 5,229	82.4 5.4 3,954	56.7 1.8 2,567	50.4 1.9 1,992	69.9 2.5 2,202	539.2 19.6 21,840	167.0 9.5 78,831
<u>Menticirrhus</u> spp. (largely <u>americanus</u>)	185.2 8.5 6,298	116.0 9.7 6,233	61.5 7.4 2,306	106.5 13.9 4,076	20.1 2.2 563	14.6 2.1 351	39.4 3.2 2,050	55.1 3.6 2,643	143.3 4.5 6,482	275.9 10.1 10,897	256.7 9.2 8,086	157.1 5.7 6,362	119.3 6.8 56,347
<u>Microgogon undulatus</u>	111.4 5.1 3,789	7.0 0.6 378	4.7 0.6 178	4.7 0.6 178	27.4 3.0 767	76.3 10.9 1,832	221.4 18.1 11,515	391.6 25.4 18,801	689.3 21.8 31,192	306.3 11.2 12,097	366.3 13.2 11,536	162.9 5.9 6,598	209.3 11.9 98,861
<u>Pogonias cromis</u>	-	* 1	* 1	0.1 * 2	-	-	-	-	-	0.1 * 3	0.1 * 2	0.2 * 7	* * 16
<u>Stellifer lanceolatus</u>	707.2 32.5 24,047	224.3 18.8 12,057	244.2 29.5 9,155	261.9 34.1 10,021	316.9 35.2 8,875	277.5 39.6 6,659	495.8 40.7 25,732	446.3 29.0 21,428	1,117.7 35.4 50,575	1,351.2 49.6 53,363	1,103.2 39.5 34,747	837.3 30.4 33,912	615.4 35.1 290,621
<u>Mullus auratus</u>	-	-	-	-	0.1 * 2	-	-	-	-	-	-	-	* * 2
<u>Lagodon rhomboides</u>	0.4 * 15	0.6 0.1 30	0.1 * 4	0.1 * 4	27.3 3.0 764	2.7 0.4 64	9.5 0.8 493	1.1 0.1 55	0.2 * 8	1.0 * 38	2.1 0.1 67	1.4 0.1 57	3.4 0.2 1,599
<u>Stenotomus</u> spp.	0.1 * 4	-	-	-	-	-	-	-	-	-	-	0.1 * 6	* * 10
<u>Chaetodipterus faber</u>	3.8 0.2 128	2.9 0.2 154	1.6 0.2 60	1.5 0.2 56	1.1 0.1 32	0.7 0.1 16	0.6 0.1 32	15.2 1.0 731	20.2 0.6 913	14.2 0.5 560	16.8 0.6 529	17.0 0.6 690	8.3 0.5 3,901
<u>Xyrichtys</u> spp.	-	-	-	0.6 0.1 24	4.4 0.5 124	1.5 0.2 37	1.5 0.1 76	2.3 0.2 109	5.0 0.2 228	-	0.1 * 2	-	1.3 0.1 600
<u>Trichiurus lepturus</u>	25.8 1.2 877	21.3 1.8 1,147	19.6 2.4 734	15.7 2.1 602	29.2 3.3 819	22.5 3.2 540	39.6 3.3 2,059	33.4 2.2 1,602	18.8 0.6 849	7.3 0.3 288	22.1 0.8 695	53.9 2.0 2,185	26.3 1.5 12,397
<u>Scomberomorus maculatus</u>	-	* 2	-	-	* 1	-	* 2	0.1 * 6	0.2 * 8	0.3 * 12	0.7 * 21	-	0.1 * 52
<u>Gobionellus oceanicus</u>	-	-	-	-	* 1	-	* 1	-	-	-	-	-	* * 2

Table 7.--Continued

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
<u>Scorpaena</u> spp.	-	-	-	-	-	-	-	-	*	-	0.1	*	*
									2		2	1	5
	4.0	3.6	1.1	6.3	2.8	19.1	9.2	17.2	5.8	8.3	9.1	7.9	7.3
<u>Prionotus</u> spp.	0.2	0.2	0.1	0.9	0.3	2.7	0.8	0.8	0.1	0.4	0.4	0.2	0.4
	137	190	39	241	78	456	476	634	262	325	288	319	1,447
<u>Astroscopus y-graecum</u>	0.6	0.1	-	0.1	0.2	0.4	-	-	0.2	-	0.1	0.5	0.2
	*	*	-	*	*	0.1	-	-	*	-	*	*	*
	20	6	-	5	6	9	-	-	7	-	4	19	76
<u>Hypsoblennius</u> spp.	-	*	0.1	0.1	*	-	-	-	-	-	*	-	*
	-	1	4	2	1	-	-	-	-	-	1	-	4
<u>Rissola marginata</u>	*	-	-	*	-	*	-	-	-	-	0.1	0.2	*
	*	-	-	*	-	*	-	-	-	-	*	*	*
	-	-	-	1	-	-	-	-	-	-	3	-	1.
<u>Peprilus alepidotus</u>	12.9	13.7	8.2	8.7	13.3	11.2	3.6	6.9	9.1	10.8	9.0	28.1	11.1
	2.6	1.2	1.0	1.1	1.5	1.6	1.3	1.5	0.3	0.4	0.3	1.0	0.6
	438	736	308	333	373	269	189	333	412	428	283	1,138	5,240
<u>Poronotus triacanthus</u>	9.4	15.2	20.6	21.7	43.6	19.5	2.4	4.2	27.1	5.2	9.7	22.0	15.6
	0.4	1.3	2.5	2.8	4.9	2.8	0.2	0.3	0.9	0.2	0.4	0.8	0.9
	318	816	773	830	1,221	468	124	200	1,225	204	307	893	7,379
<u>Sphyræna</u> spp.	*	-	-	-	-	-	-	*	*	1.1	0.1	-	*
(largely <u>guachancho</u>)	1	-	-	-	-	-	-	1	1	4	2	-	9
<u>Mugil cephalus</u>	-	-	-	-	-	-	-	-	-	-	0.3	*	*
	-	-	-	-	-	-	-	-	-	-	10	1	11
<u>Polydactylus octonemus</u>	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Ancylopsetta quadrocellata</u>	1.0	0.7	0.2	0.6	2.4	3.1	0.7	0.9	0.5	1.2	0.4	0.1	0.8
	*	0.1	*	0.1	0.3	0.4	0.1	0.1	*	*	*	*	*
	35	39	7	24	66	74	37	45	21	6	12	6	372
<u>Citharichthys</u> spp.	0.6	0.3	0.1	*	1.4	1.4	3.2	1.4	1.8	1.3	1.8	3.3	1.4
(largely <u>spilopterus</u>)	*	*	*	*	0.2	0.2	0.3	0.1	0.1	0.1	0.1	0.1	0.1
	22	16	4	1	38	34	169	66	82	53	56	135	676
<u>Etropus crossotus</u>	59.9	37.8	19.0	5.9	4.0	1.0	7.3	6.6	33.0	35.9	46.7	48.2	25.8
	2.8	3.2	2.3	0.8	0.5	0.1	0.6	0.4	1.0	1.3	1.7	1.8	1.5
	2,036	2,034	712	224	113	23	379	317	1,493	1,419	1,470	1,951	12,173
<u>Paralichthys dentatus</u>	0.9	0.9	0.5	0.4	0.4	1.0	3.4	1.7	1.2	2.2	2.1	2.8	1.6
	*	0.1	0.1	0.1	*	0.1	0.3	0.1	*	0.1	0.1	0.1	0.1
	31	50	18	15	11	23	179	84	55	87	65	115	733
<u>Paralichthys lethostigma</u>	-	0.1	-	-	-	-	-	-	-	0.1	0.2	0.1	*
	-	*	-	-	-	-	-	-	-	*	*	*	*
	-	8	-	-	-	-	-	-	-	2	6	5	21
<u>Scophthalmus aquosus</u>	1.2	2.9	6.1	9.3	21.2	2.1	2.0	0.2	0.4	2.6	3.4	1.4	3.9
	0.1	0.2	0.7	1.2	2.4	0.3	0.2	*	*	0.1	0.1	0.1	0.2
	41	156	228	355	595	50	105	10	18	102	107	58	1,325
<u>Syacium</u> spp.	-	-	-	-	-	0.3	-	0.4	0.8	-	-	-	0.1
	-	-	-	-	-	*	-	*	*	-	-	-	*
	-	-	-	-	-	6	-	19	36	-	-	-	61
<u>Bothus ocellatus</u>	-	-	-	-	-	0.1	-	0.1	-	-	-	-	*
	-	-	-	-	-	*	-	*	-	-	-	-	*
	-	-	-	-	-	2	-	4	-	-	-	-	6
<u>Trinectes maculatus</u>	8.5	3.4	1.8	12.9	5.6	2.6	23.8	14.3	36.5	50.4	31.8	21.2	18.4
	0.4	0.3	0.2	1.7	0.6	0.4	2.0	0.9	1.1	1.9	1.1	0.8	1.1
	289	182	68	494	158	62	1,237	686	1,650	1,992	1,003	857	8,678
<u>Symphurus</u> spp.	13.1	9.3	9.5	10.4	4.7	0.4	4.0	1.2	6.0	20.0	16.3	30.4	10.4
(largely <u>plagiusa</u>)	0.6	0.8	1.2	1.4	0.5	0.1	0.3	0.1	0.2	0.7	0.6	1.1	0.6
	444	501	356	399	132	10	210	57	273	788	513	1,233	4,916
<u>Echeneis naucrates</u>	-	-	-	-	*	-	*	-	*	-	-	-	*
	-	-	-	-	1	-	1	-	1	-	-	-	3
<u>Balistes</u> spp.	-	-	-	-	*	-	*	-	0.1	-	-	-	*
	-	-	-	-	*	-	*	-	*	-	-	-	*
	-	-	-	-	1	-	1	-	4	-	-	-	6

Table 7.--Continued

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
<u>Alutera schoepfii</u>	-	-	0.1 *	0.1 *	0.1 *	0.1 *	0.1 *	-	1.0 *	-	-	-	*
			3	2	3	3	4		8				23
<u>Stephanolepis</u> spp.	-	-	-	0.1 *	1.8 0.4	0.2 *	0.5 *	0.0 0.1	29.9 1.0	1.2 *	0.1 *	-	3.4 6.2
				5	107	5	26	90	1,354	1	4		1,605
<u>Acanthostracion</u> spp. (largely <u>quadricornis</u>)	-	-	-	-	0.1 *	-	-	-	-	-	-	-	*
					2								2
<u>Lagocephalus laevigatus</u>	-	-	-	-	*	-	0.1 *	*	-	-	-	-	*
					1		3	1					5
<u>Sphaeroides</u> spp.	-	-	*	-	*	-	*	*	-	-	0.1 *	0.1 *	*
			1		1		1	1			2	4	10
<u>Chilomycterus schoepfi</u>	1.1 0.1 39	0.1 *	0.2 *	0.7 0.1 26	0.3 *	0.2 *	0.4 *	0.3 *	0.6 *	1.8 0.1	1.3 0.1	1.0 *	0.6 *
					8	4	19	16	28	72	40	40	306
<u>Opsanus tau</u>	-	-	-	0.3 *	-	-	-	-	-	-	-	-	*
				11									11
<u>Porichthys porosissimus</u>	-	-	-	-	-	-	-	*	0.3 *	-	-	0.1 *	*
								1	12			2	15
<u>Ogcocephalus</u> spp. (largely <u>vespertilio</u>)	*	-	-	-	-	-	-	-	0.3 *	0.3 *	0.5 *	0.2 *	0.1 *
	1								15	11	16	10	53
Total	2,173.9 100.0 73,915	1,192.5 99.9 64,135	827.6 99.9 31,008	767.8 100.2 29,377	900.4 100.0 25,227	701.2 99.9 16,825	1,217.9 99.8 63,346	1,539.9 99.9 73,943	3,158.2 99.7 142,921	2,724.3 100.0 107,588	2,795.1 100.4 88,025	2,752.0 100.0 111,437	1,752.5 99.7 827,767

Table 8.--Fish taken by trawling, All Areas Combined (South Carolina Outside, Georgia Inside and Outside, and Florida Outside), M/V Launch 58, 1931-35, catch per unit of effort (75-foot shrimp trawl at 2 to 3 knots) by months for all years and stations combined

[Upper figure, number of fish per hour of hauling; middle figure, percent of total catch; and lower figure, total number of fish; asterisk indicates value less than 0.05]

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
<u>Carcharhinus</u> spp.	-	*	-	*	-	0.1	.1	.1	*	*	-	0.1	0.1
		1				10	5	11	*	*		4	44
<u>Scoleciodon terraenovae</u>	*	-	-	*	0.6	0.5	0.4	0.4	0.1	0.6	*	.1	0.6
	*			*	.1	0.3	.1	*	*	*	*	*	*
	2				47	129	149	41	5	44		3	575
<u>Sphyrna tiburo</u>	0.9	0.1	0.1	0.1	0.7	1.1	0.3	0.3	0.9	1.1	0.5	1.0	0.8
	0.1	*	*	0.1	0.1	.1	*	*	*	0.1	0.1	*	0.1
	50	10	6	25	57	31	26	30	90	77	164	62	738
<u>Sphyrna zygaena</u>	*	-	0.1	-	0.1	.9	1.2	0.5	0.3	0.1	0.2	0.1	0.3
	*		*		*	.1	.1	*	*	*	*	*	*
	2		6		4	60	101	50	28	9	9	3	272
<u>Pristis pectinatus</u>	-	-	-	-	-	-	-	-	*	-	-	-	*
									1				1
<u>Rhinobatos lentiginosus</u>	-	-	-	-	*	*	-	0.1	*	-	-	-	*
					1	2		8	*				13
<u>Torpedo nobiliana</u>	*	-	0.1	-	-	-	*	*	0.1	.1	-	-	*
	*		*				*	*	*	*			*
	-		5				1	1	7	6			22
<u>Raja eglanteria</u>	4.4	1.8	1.1	1.3	0.4	-	0.1	*	0.7	0.1	0.7	0.7	1.9
	0.2	0.2	0.1	0.1	*	-	*	*	*	.1	.1	.4	0.1
	239	143	91	125	29		11	3	49	5	174	579	1,660
<u>Dasyatis americana</u>	0.1	0.3	0.1	0.5	0.5	.9	0.6	0.7	.6	.7	1.1	0.5	0.9
	*	*	*	0.1	0.1	*	0.2	*	*	*	*	*	0.1
	8	12	11	245	40	31	217	64	47	40	52	29	805
<u>Dasyatis centroura</u>	-	-	0.1	*	-	-	-	-	-	-	-	-	*
			7	4									11
<u>Dasyatis sabina</u>	0.0	0.8	0.7	3.5	5.0	4.3	1.5	2.8	0.1	0.1	4.3	13.7	3.4
	0.1	0.1	0.1	0.3	0.5	0.4	0.1	0.2	0.1	0.1	0.2	0.5	0.2
	106	65	55	339	388	279	123	263	207	203	203	816	3,067
<u>Gymnura micrura</u>	0.1	*	*	0.6	1.6	1.0	1.8	0.6	0.8	0.7	0.4	0.2	0.7
	*	*	*	0.1	0.2	0.1	0.1	*	*	*	*	*	*
	6	2	1	53	122	65	152	61	76	52	17	9	616
<u>Aetobatus narinari</u>	-	0.1	-	*	-	-	*	-	-	-	*	0.1	*
		*		*			*				*	*	*
		9		3			1				1	5	19
<u>Rhinoptera bonasus</u>	*	0.4	1.5	0.2	0.9	0.3	0.4	0.1	0.3	0.2	-	0.1	0.4
	*	*	0.2	*	0.1	*	*	*	*	*		*	*
	1	29	116	18	72	20	37	10	31	12		4	352
<u>Acipenser oxyrinchus</u>	-	*	-	-	-	-	-	-	-	-	-	0.1	*
		2										8	10
<u>Lepisosteus osseus</u>	-	-	*	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
			*	*	*	*	*	*	*	*	*	*	*
			2	25	18	9	9	11	8	6	4	5	97
<u>Brevoortia</u> spp.	93.9	157.6	44.4	7.8	18.3	16.1	4.7	1.7	0.5	1.1	1.5	7.9	28.3
(<u>tyrannus</u> and <u>smithi</u>)	4.9	16.3	4.7	0.7	1.8	1.5	0.3	0.1	*	0.1	0.1	0.3	1.7
	5,049	12,608	3,552	752	1,420	1,053	387	161	48	80	70	475	25,655
<u>Opisthonema oglinum</u>	10.4	1.7	*	0.1	0.1	1.5	0.2	0.1	-	0.1	-	0.5	1.0
	0.5	0.2	*	*	*	0.1	*	*	-	*	-	*	0.1
	560	132	1	11	5	99	18	11		8		28	873
All other genera and species of herrings	0.7	0.7	0.3	-	0.4	0.1	*	*	0.4	0.1	1.5	0.4	0.3
	*	0.1	*	-	*	*	*	*	*	*	0.1	*	*
	39	52	22		32	4	2	2	42	5	68	22	290
<u>Anchoa</u> spp. (largely <u>mitchilli</u> and <u>hepsetus</u>)	33.7	25.4	43.4	53.5	37.0	32.8	6.1	6.0	16.1	62.0	88.4	45.6	34.7
	1.7	2.6	4.6	4.5	3.6	3.0	0.4	0.4	0.7	2.9	3.2	1.7	2.1
	1,810	3,029	3,474	5,150	2,880	2,150	523	563	1,577	4,497	4,134	2,725	31,514
<u>Synodus foetens</u>	0.3	+	*	0.4	0.7	1.1	0.9	1.3	0.4	1.6	4.3	1.2	0.9
	+	*	*	*	0.1	0.1	0.1	0.1	*	0.1	0.2	+	0.1
	18	1	2	34	52	74	73	118	39	117	200	70	798
<u>Trachinocephalus myops</u>	-	-	-	-	-	-	-	-	0.1	-	-	-	*
									6				6

Table 8.--Continued

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
<u>Bagre marinus</u>	21.1 1.2 1,242	0.6 0.1 44	1.5 0.2 117	5.3 0.5 513	27.4 2.7 2,150	31.0 2.8 2,332	17.1 1.1 1,423	60.9 3.6 5,722	178.3 8.3 17,515	77.3 3.5 5,504	69.3 2.5 3,238	11.5 0.4 687	441.4 2.7 40,267
<u>Galeichthys felis</u>	1.8 0.1 98	* * 1	1.4 0.3 195	36.6 3.1 3,523	58.1 5.9 4,519	74.3 6.8 4,865	46.2 2.9 5,057	93.8 5.6 5,317	45.9 3.1 4,511	26.8 1.2 1,944	18.1 0.7 845	2.0 0.1 122	36.7 2.2 33,277
<u>Ophichthus</u> spp.	-	* 1	-	* 1	-	-	-	* 1	* 1	-	-	* 1	* 6
<u>Urophycis</u> spp.	3.4 1.2 182	61.7 6.4 4,432	136.7 14.6 10,439	37.3 3.2 3,586	1.4 0.1 108	* * 2	-	-	-	-	-	* 2	21.8 1.3 19,751
<u>Fistularia tabacaria</u>	-	-	-	-	-	-	-	-	* 2	-	-	-	* 2
<u>Hippocampus</u> spp.	* * 1	-	* * 1	-	-	-	* * 1	-	-	-	-	-	* * 3
<u>Syngnathus</u> spp.	* * 2	0.1 * 5	* * 1	-	-	-	-	0.1 * 5	-	-	-	* * 1	* * 14
<u>Centropristis striatus</u>	1.1 * 59	0.3 * 25	0.3 * 22	0.8 0.1 73	0.4 * 32	0.3 * 17	0.2 * 20	1.9 0.1 181	0.3 * 31	0.5 * 35	0.4 * 20	0.2 * 11	0.6 * 526
<u>Centropristis philadelphicus</u>	2.7 0.1 146	0.5 0.1 38	1.4 0.2 110	0.2 * 24	0.4 * 29	0.1 * 10	6.8 0.4 562	10.2 0.6 959	5.6 0.3 547	7.0 0.3 507	10.2 0.4 479	5.9 0.2 353	4.1 0.3 3,764
<u>Diplectrum formosum</u>	-	-	* 2	-	0.4 * 28	0.1 * 4	0.2 * 20	0.5 * 48	2.6 0.1 260	-	* 2	-	0.4 * 364
<u>Lobotes surinamensis</u>	-	-	-	* 1	* 2	* 2	* 3	* 1	* -	-	-	-	* 9
<u>Pomatomus saltatrix</u>	1.9 0.1 100	1.7 0.2 135	0.7 0.1 55	3.2 * 21	1.3 0.1 103	0.4 * 28	0.1 * 5	* * 2	* * 4	0.1 * 7	1.9 0.1 88	2.2 0.1 133	0.8 0.1 681
<u>Rachycentron canadum</u>	-	-	-	-	-	-	-	-	-	* 1	-	-	* 1
<u>Caranx crysos</u>	0.3 * 16	-	* 2	* 1	* 3	0.2 * 13	0.7 * 56	2.2 0.1 206	2.3 0.1 222	0.8 * 60	0.2 * 8	0.3 * 18	0.7 * 605
<u>Caranx</u> spp.	0.2 * 9	-	-	-	-	-	-	-	* 2	-	-	-	* 11
<u>Chloroscombrus chrysurus</u>	101.9 5.3 5,475	22.9 2.4 1,830	7.0 0.8 559	3.7 0.3 360	19.2 1.9 1,495	44.0 4.0 2,851	63.3 4.0 5,254	91.6 5.4 8,613	128.0 5.8 12,580	92.4 4.1 6,699	119.9 4.3 5,607	182.0 6.7 10,872	68.6 4.2 62,225
<u>Decapterus punctatus</u>	-	-	-	-	-	-	* 1	-	-	-	-	-	* 1
<u>Selene vomer</u>	2.2 0.1 118	0.2 * 16	-	* * 1	* * 1	2.4 0.2 160	4.1 0.3 342	3.6 0.2 336	2.4 0.1 236	7.9 0.4 570	3.1 0.1 146	0.9 * 52	2.2 0.1 1,978
<u>Trachinotus</u> spp.	0.1 * 4	-	-	-	0.1 * 4	-	0.2 * 18	1.1 0.1 106	* * 2	0.1 * 9	0.1 * 5	-	0.2 * 148
<u>Trachurus lathami</u>	-	-	-	-	-	-	0.1 * 5	-	-	-	-	-	* 5
<u>Vomer setapinnis</u>	21.4 1.1 1,148	1.4 0.2 115	2.1 0.2 170	0.5 * 44	2.0 0.2 155	0.8 0.1 52	0.4 * 33	4.7 0.3 446	14.0 0.6 1,376	38.9 1.7 2,823	81.3 2.9 3,800	103.8 3.8 6,204	18.0 1.1 16,366
<u>Eucinostomus</u> spp.	-	-	* 1	* 2	0.2 * 17	-	0.2 * 19	0.2 * 19	0.3 * 32	0.2 * 13	1.3 0.1 61	0.6 * 37	0.2 * 201

Table 8.--Continued

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
<u>Haemulon aurolineatum</u>	-	-	-	-	-	-	0.1 * 12	-	-	-	-	-	* * 12
<u>Orthopristis chrysopterus</u>	1.3 1.1 72	* * 2	0.5 0.1 30	0.1 * 7	.2 * 13	* * 3	1.5 0.1 128	1.8 0.1 168	4.4 0.2 437	2.7 0.1 194	0.9 * 40	0.2 * 9	1.2 0.1 1,109
<u>Bairdiella chrysura</u>	10.5 0.5 563	4.7 0.5 378	4.4 0.5 349	16.3 1.4 1,506	0.4 0.9 732	4.8 0.4 732	5.3 0.3 442	3.8 0.2 360	5.4 0.2 530	10.8 0.5 783	9.7 0.4 453	17.5 0.6 1,046	8.3 0.5 7,518
<u>Cynoscion nebulosus</u>	0.3 * 17	0.1 * 8	* * 2	0.1 * 10	0.5 * 35	0.6 0.1 38	0.8 0.1 63	0.3 * 32	0.3 * 30	0.1 * 8	0.2 * 10	0.4 * 25	0.3 * 278
<u>Cynoscion nothus</u>	50.0 3.6 2,669	11.5 1.2 918	12.3 1.3 987	36.5 3.1 3,509	6.7 0.7 524	7.0 0.6 460	18.4 1.2 1,526	53.0 3.1 4,285	74.4 3.4 7,314	27.3 1.2 1,979	98.2 3.3 4,312	93.4 3.4 5,581	58.3 2.4 34,796
<u>Cynoscion regalis</u>	133.4 6.9 7,171	30.3 3.1 2,421	13.0 1.4 1,038	70.2 5.9 6,753	33.3 3.3 2,586	38.6 3.5 2,531	60.4 3.8 5,011	79.7 4.7 7,490	74.9 3.6 7,359	81.3 3.6 5,893	70.9 2.6 5,316	95.5 3.5 5,704	63.1 3.9 57,273
<u>Equetus acuminatus</u>	-	-	-	-	-	* 1	-	-	-	-	-	-	* 1
<u>Equetus lanceolatus</u>	-	-	-	-	-	* 1	0.1 * 4	-	-	-	-	-	* 5
<u>Larimus fasciatus</u>	16.3 0.8 874	5.1 0.5 409	4.0 0.4 322	7.7 0.7 737	6.4 0.6 498	4.8 0.4 314	9.8 0.6 815	21.1 1.2 1,980	27.0 1.2 2,655	17.8 0.8 1,289	63.3 2.3 2,957	16.4 0.6 980	15.2 0.9 13,830
<u>Leiostomus xanthurus</u>	282.8 14.6 15,200	237.7 24.6 19,014	202.3 21.6 16,183	237.1 20.0 22,819	83.0 8.1 6,454	59.3 5.4 3,882	126.4 8.0 10,488	55.5 3.3 5,221	39.0 1.8 3,833	36.5 1.6 2,646	56.1 2.0 2,621	377.8 13.8 22,572	144.3 8.8 130,933
<u>Menticirrhus</u> spp. (largely <u>americanus</u>)	170.8 8.8 9,178	89.0 9.2 7,117	47.3 5.1 3,784	60.1 5.1 5,780	12.0 1.2 933	12.6 1.2 826	31.4 2.0 2,604	39.7 2.4 3,734	77.2 3.5 7,588	169.6 7.6 12,297	197.9 7.2 9,253	133.8 4.9 7,994	78.3 4.8 71,088
<u>Microgogon undulatus</u>	76.2 4.0 4,097	5.6 0.6 450	4.7 0.5 373	15.2 1.3 1,466	79.7 7.8 6,201	224.8 20.5 14,725	306.8 19.5 25,468	353.1 20.9 33,188	377.5 17.0 37,087	189.0 8.5 13,701	252.9 9.2 11,822	111.6 4.1 6,668	171.1 10.5 155,246
<u>Pogonias cromis</u>	-	* 1	* 1	* 2	-	-	-	-	* 1	* 3	0.1 4	0.1 7	* 19
<u>Stellifer lanceolatus</u>	710.7 36.8 38,201	196.5 20.4 15,723	286.2 30.6 22,897	391.8 33.1 37,711	411.9 40.2 32,023	409.4 37.3 26,818	733.6 46.7 60,886	670.1 39.7 62,992	972.4 43.9 95,535	1,174.8 52.6 85,174	1,361.2 49.2 63,638	1,154.9 42.3 69,004	672.8 41.2 610,602
<u>Mullus auratus</u>	-	-	-	-	* 2	-	-	-	-	-	-	-	* 2
<u>Lagodon rhomboides</u>	0.3 * 16	0.4 * 30	0.1 * 4	0.1 * 5	9.8 1.0 764	1.0 0.1 67	6.2 0.4 514	0.6 * 57	0.1 * 8	0.5 * 38	1.4 0.1 67	1.0 * 57	1.8 0.1 1,627
<u>Stenotomus</u> spp.	0.1 * 4	-	-	-	-	-	-	-	-	-	-	0.1 * 6	* * 10
<u>Chaetodipterus faber</u>	2.4 0.1 128	1.9 0.2 154	0.8 0.1 62	0.9 0.1 88	6.4 0.6 495	6.5 0.5 425	1.7 0.1 138	18.8 1.1 1,766	15.3 0.7 1,505	9.5 0.4 686	11.5 0.4 537	11.5 0.4 690	7.4 0.5 6,674
<u>Xyrichtys</u> spp.	-	-	-	0.2 * 24	1.6 0.2 124	0.6 0.1 37	0.9 0.1 76	1.2 0.1 109	2.3 0.1 228	-	* 2	-	0.7 * 600
<u>Trichiurus lepturus</u>	29.3 1.5 1,577	15.8 1.6 1,263	20.8 2.2 1,666	22.6 1.9 2,178	48.6 4.8 3,781	39.6 3.6 2,593	38.4 2.4 3,189	21.2 1.3 1,994	9.6 0.4 941	8.3 0.4 600	17.5 0.6 816	38.6 1.4 2,305	25.2 1.6 22,903
<u>Scomberomorus maculatus</u>	* 2	0.1 5	-	* 1	* 1	-	* 2	0.1 9	0.2 20	0.3 19	1.2 57	0.3 16	0.2 132
<u>Gobionellus oceanicus</u>	-	-	-	-	* 2	-	* 2	-	-	-	-	-	* 4

Table 8.--Continued

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
<u>Scorpaena</u> spp.	*	-	-	-	-	-	-	-	*	-	*	*	*
												1	7
<u>Prionotus</u> spp.	4.1	1.9	1.0	10.5	8.1	8.8	6.2	1.8	1.8	4.9	6.1	6.5	5.9
	0.2	1.1	0.3	0.9	0.8	0.8	0.4	0.4	1.1	1.2	0.3	1.2	0.4
	117	127	234	1,006	621	580	510	639	269	352	309	388	5,358
<u>Astroscopus y-graecum</u>	1.9	0.3	0.2	0.5	0.8	1.5	0.3	*	0.1	0.1	0.1	0.8	0.4
	1	*	*	*	0.1	0.1	*	*	*	*	*	*	*
	48	20	19	48	62	36	24	4	8	4	4	49	332
<u>Hypsoblennius</u> spp.	1.1	*	0.1	*	*	*	*	*	*	*	0.1	*	*
	*	*	*	*	*	*	*	*	*	*	*	*	*
	3	1	0	1	1	1	1	1	1	1	3	1	17
<u>Rissola marginata</u>	*	-	-	*	-	*	-	-	-	-	0.1	1.1	*
	1			4		2					3	7	17
<u>Peprilus alepidotus</u>	11.6	10.6	10.3	33.8	62.7	11.3	6.3	6.7	8.4	10.4	8.7	11.3	17.8
	0.6	1.1	1.1	2.9	6.2	1.6	0.4	0.4	0.4	1.5	1.3	1.7	1.1
	622	848	827	3,249	4,951	1,310	521	634	821	754	408	1,214	16,159
<u>Poronotus triacanthus</u>	7.5	11.7	12.5	13.0	22.0	9.5	1.6	3.3	20.3	7.8	7.8	17.3	11.4
	0.4	1.1	1.3	1.1	2.2	0.9	1.1	0.2	0.9	0.4	0.3	0.6	1.7
	435	938	1,000	1,255	1,712	621	130	300	1,994	506	366	1,035	10,328
<u>Sphyræna</u> spp. (largely <u>guachancho</u>)	*	-	-	-	-	*	-	*	*	1.0	*	*	0.1
	*					*		*	*	0.1	*	*	*
	1					1	1	1	1	75	2		82
<u>Mugil cephalus</u>	-	-	-	-	-	-	-	-	-	-	0.3	*	*
											*	*	*
											12	1	13
<u>Polydactylus octonemus</u>	-	-	-	-	-	*	-	-	-	-	-	-	*
						1							1
<u>Ancylorsetta quadricellata</u>	1.0	0.8	1.4	5.1	2.3	1.5	0.4	0.5	0.2	0.1	0.3	0.1	1.2
	0.1	0.1	0.2	0.4	0.2	0.1	*	*	*	*	*	*	0.1
	56	61	113	494	175	100	37	45	21	6	13	6	1,127
<u>Citharichthys</u> spp. (largely <u>spilopterus</u>)	0.4	0.2	0.1	*	0.6	1.4	2.8	1.1	1.1	0.7	1.2	2.3	1.0
	*	*	*	*	0.1	0.1	0.2	0.1	0.1	*	*	0.1	0.1
	23	16	7	1	44	94	230	100	106	54	56	135	866
<u>Etropus crossotus</u>	86.4	46.6	44.3	57.2	7.6	2.0	6.8	11.6	33.8	77.9	122.4	168.1	49.1
	4.5	4.8	4.7	4.8	0.8	0.2	0.4	0.7	1.5	3.5	4.4	6.2	3.0
	4,642	3,728	3,545	5,505	593	128	564	1,090	3,328	5,649	5,721	10,043	44,526
<u>Paralichthys dentatus</u>	1.5	1.2	1.2	1.6	3.8	4.3	7.6	2.4	2.1	3.3	2.1	3.0	2.8
	0.1	0.1	0.1	0.1	0.4	0.4	0.5	0.1	0.1	0.2	0.1	0.1	0.2
	82	94	90	157	295	280	630	221	219	236	96	182	2,578
<u>Paralichthys lethostigma</u>	*	0.2	*	-	-	-	-	-	-	0.4	0.3	0.2	0.1
	*	*	*							*	*	*	*
	2	15	1							29	15	13	75
<u>Scophthalmus aquosus</u>	0.8	3.4	12.0	9.2	8.5	0.8	1.3	0.1	0.2	1.6	2.3	1.0	3.6
	*	0.4	1.3	0.8	0.8	0.1	0.1	*	*	0.1	0.1	*	0.2
	42	269	958	888	664	50	105	10	18	119	109	60	3,292
<u>Syacium</u> spp.	-	-	-	-	-	0.1	-	0.2	0.4	-	-	-	0.1
						6		19	36				61
<u>Bothus ocellatus</u>	-	-	-	-	-	*	-	*	-	-	-	-	*
						2		4					6
<u>Trinectes maculatus</u>	5.6	2.9	1.3	10.4	11.8	19.7	29.8	46.4	39.4	43.4	31.1	19.0	22.4
	0.3	0.3	0.1	0.9	1.2	1.8	1.9	2.8	1.8	1.9	1.1	0.7	1.4
	300	226	106	1,004	919	1,290	2,476	4,365	3,867	3,143	1,452	1,136	20,286
<u>Symphurus</u> spp. (largely <u>plagiusa</u>)	17.6	7.7	9.3	25.5	5.6	1.0	3.0	2.9	7.5	21.6	25.6	45.2	13.2
	0.9	0.8	1.0	2.2	0.5	0.1	0.2	0.2	0.3	1.0	0.9	1.7	0.8
	948	614	742	2,450	432	66	252	275	732	1,564	1,196	2,699	11,970
<u>Echeneis naucrates</u>	-	-	-	-	*	*	*	*	*	-	-	-	*
					3	1	1		1				6
<u>Balistes</u> spp.	-	-	-	-	*	-	*	-	*	-	-	-	*
					1		1		4				6

Table 8.--Continued

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
<u>Alutera schoepfii</u>	-	-	*	*	*	0.1	0.1	-	0.1	-	-	-	*
			3	2	1	1	4		1				23
<u>Stephanolepis</u> spp.	-	-	-	*	1.1	0.1	0.3	1.1	1.2	1.1	1.1	-	1.5
				5	137	5	26	46	1,360	7	4		1,611
<u>Acanthostracion</u> spp. (largely <u>quadricornis</u>)	-	-	-	-	*	-	-	-	-	-	-	-	*
					-								2
<u>Lagocephalus laevigatus</u>	-	-	-	-	*	-	0.1	0.1	-	-	-	-	*
					1		4	7					12
<u>Sphaeroides</u> spp.	-	-	*	*	*	-	*	*	-	0.1	*	0.1	*
			1	1	1		1	1		4	2	4	15
<u>Chilomycterus schoepfi</u>	1.5	0.2	0.3	0.9	0.4	0.3	0.7	0.6	1.0	0.9	0.1	1.9	1.0
	0.1	*	*	0.1	*	*	0.1	*	0.1	0.1	0.1	0.1	0.1
	78	12	23	89	28	21	61	56	101	213	144	112	938
<u>Opsanus tau</u>	0.3	*	*	1.0	0.2	0.1	0.3	0.1	*	0.1	0.1	0.1	0.2
	*	*	*	*	*	*	*	*	*	*	*	*	*
	14	3	2	98	17	6	27	7	3	9	4	8	198
<u>Porichthys porosissimus</u>	-	-	-	-	-	-	-	*	0.1	-	-	*	*
								1	12			2	15
<u>Ogcocephalus</u> spp. (largely <u>vespertilio</u>)	*	-	-	-	-	-	-	-	0.2	0.2	0.7	0.2	0.1
	*								*	*	*	*	*
	1								15	13	34	10	73
Total	1,930.3	965.6	936.4	1,182.5	1,223.6	1,097.1	1,571.4	1,689.4	2,214.7	2,231.8	2,754.8	2,730.1	1,633.5
	99.7	99.9	100.0	100.0	100.3	99.7	99.8	99.9	99.6	99.9	100.0	99.7	100.0
	103,768	77,211	74,914	113,914	79,593	71,877	130,465	158,838	217,582	161,792	129,257	163,111	1,482,323

Table 9.--Fish taken by trawling, families representing one percent or more of the total catch for the region (all areas combined), M/V Launch 58, 1931-35, catch per unit of effort (75-foot shrimp trawl at 2 to 3 knots) by areas for all months and years combined, arranged in descending order of importance

[Upper figure, number of fish per hour of trawling; and lower figure, percent of total catch]

	All Areas Combined	South Carolina Outside	Georgia Inside	Georgia Outside	Georgia Combined	Florida Outside	South Carolina, Georgia, and Florida Outside Combined
Sciaenidae	1,191.7 73.0	1,730.9 82.9	1,096.1 72.9	983.3 70.6	1,048.9 72.0	1,462.7 72.0	1,279.8 72.9
Carangidae	69.7 5.4	20.6 1.1	18.9 1.3	111.8 8.0	57.9 4.0	388.6 14.4	154.8 8.9
Ariidae	61.1 4.9	44.2 2.1	95.1 6.3	47.1 3.4	75.0 5.2	153.4 5.7	68.1 3.9
Bothidae	57.9 3.6	20.5 0.9	84.1 5.5	40.0 2.9	65.7 4.5	21.2 0.7	33.6 1.9
Soleidae and Cynoglossidae	35.6 2.2	39.2 1.8	42.9 2.9	24.5 1.8	35.2 2.4	35.8 1.3	28.8 1.7
Engraulidae	34.7 2.1	53.1 2.5	43.4 2.9	27.4 2.0	36.7 2.5	6.7 0.3	26.7 1.5
Clupeidae	29.6 1.8	73.1 3.5	15.7 1.0	44.2 3.1	27.7 1.9	14.6 0.6	42.2 2.4
Stromateidae	29.2 1.8	21.2 1.0	31.9 2.2	28.4 2.1	30.4 2.1	24.6 1.0	26.7 1.5
Trichiuridae	25.2 1.6	11.5 0.6	24.1 1.6	27.8 2.0	25.7 1.8	30.6 1.1	26.3 1.5
Gadidae	21.8 1.3	54.3 2.6	25.8 1.7	14.1 1.0	20.9 1.4	6.5 0.2	18.1 1.0
Total	1,596.5 97.7	2,008.6 99.0	1,478.0 98.3	1,348.6 96.9	1,424.1 97.8	2,644.7 97.3	1,705.1 97.2

Table 10.--Fish taken by trawling, species representing one percent or more of the total catch for the region (all areas combined), M/V Launch 58, 1931-35, catch per unit of effort (75-foot shrimp trawl at 2 to 3 knots) by areas for all months and years combined, arranged in descending order of importance

[Upper figure, number of fish per hour of trawling; and lower figure, percent of total catch]

	All Areas Combined	South Carolina Outside	Georgia Inside	Georgia Outside	Georgia Combined	Florida Outside	South Carolina, Georgia, and Florida Outside Combined
<u>Stellifer lanceolatus</u>	672.8 41.2	809.1 38.8	735.2 48.9	528.6 38.0	648.5 44.5	774.1 28.4	615.4 35.1
<u>Micropogon undulatus</u>	171.1 10.5	152.6 7.3	129.5 8.6	140.6 10.1	134.2 9.2	476.0 17.5	209.3 11.9
<u>Leiostomus xanthurus</u>	144.3 8.8	466.4 22.3	119.7 8.0	109.7 7.8	115.5 7.9	156.0 5.7	167.0 9.5
<u>Menticirrhus</u> spp.	73.3 4.8	100.8 4.8	33.9 2.3	99.1 7.1	61.2 4.2	198.9 7.3	119.3 6.8
<u>Chloroscombrus chrysurus</u>	68.6 4.2	11.6 0.6	14.5 1.0	93.1 6.7	47.5 3.3	274.8 10.1	118.4 6.8
<u>Cynoscion regalis</u>	53.1 3.9	141.4 6.8	64.9 4.3	49.6 3.6	58.6 4.0	46.2 1.7	61.4 3.5
<u>Etropus crossotus</u>	49.1 3.0	15.3 0.7	74.3 4.9	29.9 2.2	55.7 3.8	19.1 0.7	25.8 1.5
<u>Bagre marinus</u>	44.4 2.7	28.6 1.4	38.2 2.5	32.9 2.4	36.0 2.5	121.3 4.5	50.1 2.9
<u>Cynoscion nothus</u>	38.3 2.4	25.5 1.2	1.0 0.1	25.2 1.8	11.2 0.8	262.2 9.6	72.7 4.2
<u>Galeichthys felis</u>	36.7 2.2	15.6 0.7	56.9 3.8	14.2 1.0	39.0 2.7	32.1 1.2	18.0 1.0
<u>Anchoa</u> spp.	34.7 2.1	53.1 2.5	43.4 2.9	27.4 2.0	36.7 2.5	6.7 0.3	26.7 1.5
<u>Brevortia</u> spp.	28.3 1.7	72.9 3.5	13.9 0.9	43.6 3.1	26.4 1.8	12.8 0.5	41.5 2.4
<u>Trichiurus lepturus</u>	25.2 1.6	11.5 0.6	24.1 1.6	27.8 2.0	25.7 1.8	30.6 1.1	26.3 1.5
<u>Trinectes maculatus</u>	22.4 1.4	19.4 0.9	26.7 1.8	14.6 1.1	21.6 1.5	30.2 1.1	18.4 1.1
<u>Urophycis</u> spp.	21.8 1.3	54.3 2.6	25.8 1.7	14.1 1.0	20.9 1.4	6.5 0.2	18.1 1.0
<u>Vomer setapinnis</u>	18.0 1.1	3.4 0.2	1.4 0.1	16.2 1.2	7.6 0.5	110.8 4.1	33.4 1.9
<u>Peprilus alepidotus</u>	17.8 1.1	2.0 0.1	25.1 1.7	11.8 0.9	19.5 1.3	14.9 0.6	11.1 0.6

Table 11.--Fish taken by trawling, families representing one percent or more of the total catch for the region (all areas combined), M/V Launch 58, 1931-35, catch per unit of effort (75-foot shrimp trawl at 2 to 3 knots) by areas and months for all years combined, arranged in descending order of importance

[Upper figure, number of fish per hour of hauling; and lower figure, percent of total catch; asterisk indicates value less than 0.05]

SCIAENIDAE	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
South Carolina Outside	3,206.8 86.8	1,432.4 74.5	267.0 29.0	233.3 42.2	901.0 61.8	683.4 63.3	1,759.0 88.5	1,584.6 87.0	3,009.5 90.1	2,470.4 85.7	1,122.6 91.1	3,373.3 94.7	1,730.9 82.9
Georgia Inside	1,128.7 74.6	212.5 42.6	649.9 62.9	1,022.2 70.2	477.0 62.0	951.3 71.7	1,872.8 86.5	1,391.1 75.8	1,085.0 77.0	1,189.4 72.5	3,076.1 71.0	2,011.1 74.9	1,096.1 72.9
Georgia Outside	811.4 65.3	563.6 55.5	319.8 54.2	496.9 72.6	599.4 65.8	431.5 62.2	783.3 70.7	951.2 71.0	1,007.0 71.0	1,572.9 80.7	1,550.0 72.2	1,764.3 70.1	983.3 70.6
Georgia Inside and Outside Combined	968.8 70.3	421.8 52.2	524.6 60.6	862.9 70.6	653.2 63.1	793.2 69.9	1,337.0 81.2	1,210.6 74.0	1,376.8 74.3	1,363.9 76.5	1,785.4 74.5	1,664.0 71.5	1,948.9 70.0
Florida Outside	2,569.4 76.2	1,172.9 79.3	1,421.3 81.5	1,078.1 80.8	135.9 51.9	206.2 55.9	834.4 82.5	1,600.5 79.4	3,003.1 68.2	4,130.0 73.3	4,111.2 76.9	1,824.0 48.6	1,962.7 72.0
CARANGIDAE													
South Carolina Outside	4.0 0.1	-	-	-	0.3 *	7.0 0.7	51.4 2.6	90.2 5.1	17.2 0.5	38.4 1.3	13.6 1.2	7.3 0.2	20.6 1.1
Georgia Inside	13.9 1.0	8.4 1.7	3.1 0.3	0.2 *	17.3 1.6	20.3 1.5	22.0 1.0	35.6 1.9	26.2 1.9	39.3 2.3	23.1 0.9	27.0 1.0	16.9 1.3
Georgia Outside	121.2 9.8	41.5 4.1	14.0 2.4	1.8 0.2	25.8 2.8	109.4 15.8	125.9 11.4	186.2 14.0	321.7 12.0	72.5 3.8	192.2 8.9	127.0 5.6	111.8 8.0
Georgia Inside and Outside Combined	67.9 4.9	28.1 3.4	7.2 0.8	0.7 *	19.9 1.9	47.2 4.1	73.1 4.4	97.5 5.9	131.3 7.2	54.3 3.1	116.9 4.8	84.8 3.4	57.9 4.0
Florida Outside	470.8 14.1	14.2 1.0	39.6 2.3	53.0 4.1	74.6 28.4	90.7 24.6	60.1 5.8	150.5 7.4	351.4 7.9	953.8 16.9	738.5 13.4	1,555.6 41.4	388.6 14.4
ARIIDAE													
South Carolina Outside	-	-	-	1.4 0.3	18.4 1.2	24.7 2.3	81.8 4.1	35.2 2.0	153.0 4.6	184.4 6.4	0.2 *	-	44.2 2.1
Georgia Inside	0.8 0.1	* *	0.4 *	57.8 4.0	110.7 10.1	160.6 12.1	117.2 5.4	256.1 13.9	149.4 10.7	69.4 4.3	14.3 0.6	0.3 *	95.1 6.3
Georgia Outside	2.0 0.2	-	0.2 *	21.9 3.2	49.4 5.4	8.4 1.2	29.0 2.7	68.3 5.2	171.7 6.5	97.1 4.9	113.4 5.3	3.5 0.2	47.1 3.4
Georgia Inside and Outside Combined	1.4 0.1	* *	0.3 *	46.9 3.9	91.9 8.9	114.5 10.1	73.9 4.5	179.0 11.0	157.2 8.5	82.0 4.6	69.4 2.8	2.2 0.1	75.0 5.2
Florida Outside	151.0 4.5	4.6 0.3	48.0 2.8	18.8 1.5	0.6 0.2	2.0 0.6	7.4 0.7	36.1 1.8	716.8 18.2	237.8 4.3	227.7 4.2	83.4 2.2	153.4 5.7
BOTHIDAE													
South Carolina Outside	17.0 0.4	13.1 0.7	42.9 4.6	7.1 1.3	9.3 0.6	3.3 0.3	11.2 0.6	11.8 0.6	67.6 2.0	20.8 0.7	12.2 1.0	18.4 0.5	20.5 0.9
Georgia Inside	135.8 9.0	71.6 14.5	88.3 8.4	110.8 7.7	19.0 1.7	10.7 0.9	22.5 1.1	20.5 1.1	37.8 2.6	134.0 8.2	261.6 10.4	424.4 15.8	84.1 5.5
Georgia Outside	93.5 7.5	51.4 5.0	23.0 3.9	19.0 2.9	35.3 3.9	10.7 1.6	21.2 2.0	8.5 0.6	31.1 1.0	49.1 2.6	72.0 3.3	79.7 3.5	40.0 2.9
Georgia Inside and Outside Combined	114.5 8.3	59.4 7.3	63.5 7.4	83.0 6.7	24.1 2.4	10.8 1.0	21.9 1.3	15.6 0.9	35.3 2.0	95.5 5.3	165.3 6.9	224.7 9.3	65.7 4.5
Florida Outside	24.1 0.7	25.8 1.7	21.8 1.2	14.2 1.2	6.0 2.3	2.7 0.8	10.6 1.1	19.7 1.0	39.0 0.8	30.9 0.7	37.8 0.6	6.8 0.2	21.2 0.7
SOLEIDAE AND CYNOGLOSSIDAE													
South Carolina Outside	49.5 1.3	16.3 0.9	48.9 5.2	30.1 5.4	31.7 2.2	6.0 0.6	28.0 1.4	16.0 0.9	58.3 1.8	76.4 2.7	32.0 2.6	64.4 1.8	39.2 1.8
Georgia Inside	26.1 1.7	6.1 1.3	10.0 1.0	44.2 3.0	21.3 2.0	30.9 2.3	41.4 2.0	84.7 4.6	50.5 3.6	58.4 3.5	74.2 2.8	90.7 3.3	42.9 2.9
Georgia Outside	20.5 1.7	12.0 1.2	4.4 0.8	18.5 2.7	8.9 1.0	2.7 0.4	31.8 2.9	10.8 0.8	25.5 0.9	57.8 2.9	42.9 2.0	59.1 2.6	24.5 1.8
Georgia Inside and Outside Combined	23.2 1.7	9.6 1.2	7.8 0.9	36.3 3.0	17.5 1.7	22.4 2.0	36.7 2.2	54.4 3.4	41.6 2.2	56.1 3.2	56.9 2.4	72.4 2.9	35.2 2.4
Florida Outside	6.1 0.2	13.3 0.9	6.7 0.3	35.7 2.8	-	1.3 0.4	19.1 1.9	28.7 1.4	82.8 1.9	115.4 2.0	72.0 1.3	19.9 0.5	35.8 1.3

Table 11.--Continued

ENGRAULIDAE	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
South Carolina Outside	23.1 0.6	72.0 3.7	155.5 16.6	13.8 2.5	235.0 16.1	121.0 11.2	8.3 0.4	12.2 0.7	1.3 *	47.2 1.6	30.8 2.5	56.0 1.6	53.1 2.5
Georgia Inside	48.2 3.2	12.9 2.6	34.9 3.4	72.5 5.0	37.6 3.4	31.3 2.4	9.5 0.4	6.5 0.4	16.3 1.2	96.5 5.9	176.6 6.5	72.9 2.7	43.4 2.9
Georgia Outside	33.2 2.7	29.5 2.9	40.3 6.8	29.2 4.3	13.5 1.5	22.4 3.2	5.1 0.5	5.1 0.4	23.7 0.9	39.0 2.0	67.7 3.2	36.4 1.6	27.4 2.0
Georgia Inside and Outside Combined	40.6 3.0	22.8 2.8	36.9 4.3	59.4 4.9	30.2 2.9	28.6 2.5	7.3 0.4	5.9 0.4	18.9 1.0	70.4 3.9	116.2 4.9	51.8 2.1	36.7 2.5
Florida Outside	8.0 0.2	15.8 1.1	14.7 0.8	18.3 1.4	2.3 0.9	28.3 7.7	0.6 0.1	3.8 0.2	1.2 *	0.6 *	-	5.6 0.2	6.7 0.3
CLUPEIDAE													
South Carolina Outside	345.1 9.3	275.5 14.3	75.8 8.1	9.2 1.7	114.7 7.9	104.4 9.7	5.8 0.3	2.8 0.1	0.3 *	1.6 0.1	1.2 0.1	3.3 0.1	73.1 3.5
Georgia Inside	80.2 5.3	71.8 14.5	31.7 3.0	10.3 0.7	9.2 0.8	11.1 0.8	7.5 0.3	2.0 0.1	0.4 *	1.4 0.1	2.6 0.1	5.5 0.3	15.7 1.0
Georgia Outside	108.0 8.7	224.9 22.0	52.6 8.9	2.3 0.3	29.6 3.2	21.2 3.0	4.0 0.3	1.2 0.1	1.1 *	0.4 *	1.1 0.1	13.9 0.6	44.2 3.1
Georgia Inside and Outside Combined	94.2 6.8	163.1 20.2	39.6 4.6	7.9 0.6	15.5 1.4	14.2 1.2	5.8 0.3	1.8 0.1	0.7 *	1.0 0.1	1.8 0.1	10.3 0.4	27.7 1.9
Florida Outside	1.0 *	71.3 4.8	73.6 4.2	7.3 0.6	0.7 0.3	-	0.4 *	2.2 0.1	3.6 0.1	4.2 0.1	9.6 0.2	4.0 0.1	14.6 0.6
STROMATEIDAE													
South Carolina Outside	4.2 0.1	9.8 0.5	30.5 3.3	25.1 4.5	131.7 9.0	109.4 10.2	5.5 0.3	1.8 0.1	3.0 0.1	0.8 *	6.0 0.5	20.0 0.5	21.2 1.0
Georgia Inside	13.7 0.9	8.9 1.8	17.5 1.7	57.6 4.0	101.9 9.3	28.8 2.2	10.9 0.5	8.8 0.5	22.2 1.5	20.9 1.3	12.1 0.4	11.3 0.5	31.9 2.2
Georgia Outside	23.3 1.9	22.1 2.2	29.2 4.9	34.3 5.0	54.0 5.9	19.6 2.8	8.0 0.7	9.2 0.7	51.8 2.0	18.0 0.9	23.0 1.1	55.9 2.5	28.4 2.1
Georgia Inside and Outside Combined	18.5 1.3	16.8 2.0	22.0 2.5	50.5 4.1	87.2 8.4	26.0 2.3	9.5 0.6	9.0 0.5	32.8 1.8	19.6 1.1	18.1 0.7	37.1 1.5	30.4 2.1
Florida Outside	31.6 0.9	67.5 4.5	25.7 1.5	20.6 1.6	3.3 1.3	19.0 5.2	20.0 0.2	20.8 1.0	10.4 0.2	18.8 0.4	16.5 0.3	51.8 1.4	24.6 1.0
TRICHIURIDAE													
South Carolina Outside	10.5 0.3	28.4 1.5	1.5 0.2	4.2 0.8	13.0 0.9	15.7 1.5	19.8 1.0	25.2 1.4	4.0 0.1	14.4 0.5	2.0 0.2	1.5 *	11.5 0.6
Georgia Inside	35.4 2.3	4.4 0.9	21.9 2.1	27.2 1.9	59.5 5.5	49.5 3.7	36.5 1.7	8.5 0.5	1.7 0.1	9.5 0.6	7.9 0.3	6.2 0.2	24.1 1.6
Georgia Outside	13.5 1.1	16.2 1.6	25.1 4.2	19.2 2.8	35.5 3.9	26.8 3.9	56.3 5.1	39.2 3.0	16.0 0.6	1.6 0.1	23.6 1.1	59.4 2.6	27.8 2.0
Georgia Inside and Outside Combined	24.4 1.8	11.4 1.4	23.1 2.7	24.8 2.0	52.2 5.0	42.6 3.8	46.2 2.8	21.1 1.3	6.8 0.4	5.9 0.3	16.6 0.7	37.0 1.5	25.7 1.8
Florida Outside	64.7 1.9	38.4 2.6	12.3 0.7	13.8 1.1	-	3.3 0.9	15.2 1.5	20.2 1.0	35.8 0.8	24.6 0.4	31.5 0.6	70.8 1.9	30.6 1.1
GADIDAE													
South Carolina Outside	3.5 0.1	71.6 3.7	305.3 32.6	208.5 37.5	1.0 0.1	0.7 0.1	-	-	-	-	-	-	54.3 2.6
Georgia Inside	2.5 0.2	92.1 18.5	167.2 16.2	27.1 1.9	1.6 0.1	-	-	-	-	-	-	-	25.8 1.7
Georgia Outside	5.7 0.5	48.4 4.8	73.8 12.5	20.7 3.2	1.3 0.1	-	-	-	-	-	-	0.1 *	14.1 1.0
Georgia Inside and Outside Combined	4.1 0.3	66.0 8.2	131.8 15.2	25.2 2.1	1.5 0.1	-	-	-	-	-	-	*	20.9 1.4
Florida Outside	0.1 *	25.8 1.7	39.0 2.2	20.9 1.6	-	-	-	-	-	-	-	-	6.5 0.2

Table 11.--Fish taken by trawling, speed representing the percent of total catch by the region and area (see p. 1), M/V Louch 58, 1951-55, catch per unit of effort (75-foot shrimp trawl at 2 to 4 knots) by areas and months for all years combined, arranged in descending order of importance

[Upper figure, number of fish per hour of hauling; and lower figure, percent of total catch; asterisk indicates value less than 0.05]

<u>Stellifer ian. solatus</u>	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
South Carolina Outside	782.8 21.2	145.1 7.5	89.5 10.0	154.4 27.9	777.1 53.3	540.7 5.0	1,447.1 82.9	1,447.1 57.8	1,441.1 74.1	1,633.4 56.8	512.6 41.3	277.3 7.5	809.1 38.8
Georgia Inside	716.7 47.4	139.7 28.0	323.3 31.3	477.4 32.5	265.1 42.6	445.2 27.8	1,135.4 51.3	305.7 49.1	440.4 60.2	464.0 58.7	1,524.5 60.1	1,233.0 67.9	735.2 48.9
Georgia Outside	357.1 28.7	138.4 13.6	119.6 20.2	322.6 47.1	297.4 32.6	277.6 40.1	501.4 45.2	127.5 30.0	55.5 30.2	1,400.4 55.8	1,345.1 48.7	1,117.6 44.5	538.6 35.1
Georgia Inside and Outside Combined	535.7 38.9	138.9 17.2	246.0 28.4	430.5 35.2	413.8 39.9	422.8 37.3	822.1 50.0	645.4 42.7	883.1 44.9	1,031.5 57.3	1,423.6 54.4	1,414.5 54.0	648.5 44.5
Florida Outside	1,462.6 43.9	620.7 42.0	925.5 51.0	133.7 10.3	-	13.3 1.6	165.7 15.4	315.7 15.4	1,212.6 27.0	2,169.1 38.5	1,544.7 3.1	325.1 8.7	774.1 28.4
<u>Microgogon undulatus</u>													
South Carolina Outside	55.4 1.5	1.6 0.1	1.1 0.2	2.5 0.4	11.0 0.8	17.0 1.6	288.3 14.5	313.2 17.3	102.3 6.1	457.6 15.9	101.6 16.3	161.1 4.5	152.6 7.3
Georgia Inside	15.6 1.0	2.7 0.6	4.6 0.4	22.2 1.5	109.2 10.0	310.7 23.4	450.1 20.8	312.8 17.0	111.2 7.9	48.6 3.0	18.8 0.7	3.6 0.1	129.5 8.6
Georgia Outside	93.1 7.5	3.2 0.3	2.7 0.5	1.3 0.2	21.8 2.4	91.7 13.2	135.4 12.2	258.7 19.5	676.6 25.4	202.9 10.4	81.2 3.8	27.0 1.2	140.5 10.1
Georgia Inside and Outside Combined	54.6 4.0	3.0 0.4	3.9 0.4	15.9 1.3	82.4 8.0	244.4 21.5	295.3 17.9	290.6 17.8	312.3 16.8	118.8 6.7	53.4 2.2	17.2 0.7	134.2 9.2
Florida Outside	190.8 5.7	25.7 1.7	16.8 1.0	20.0 1.5	85.0 32.4	43.3 11.7	367.6 36.3	814.4 39.8	1,118.5 22.7	604.0 10.7	1,125.1 21.9	587.8 15.6	476.0 17.5
<u>Leiostomus xanthurus</u>													
South Carolina Outside	1,457.1 39.5	1,096.0 57.0	6.0 0.6	10.5 1.9	9.0 0.6	47.0 4.4	138.5 7.0	53.6 3.0	9.3 0.3	4.8 0.2	24.0 1.9	1,426.0 69.9	466.4 22.3
Georgia Inside	180.2 11.9	23.5 4.7	254.7 25.6	376.8 25.9	37.8 3.5	80.6 6.1	169.6 7.8	27.5 1.5	23.9 1.7	19.8 1.2	27.5 1.0	38.0 1.4	119.7 8.0
Georgia Outside	88.5 7.1	262.7 25.8	157.4 26.6	20.2 2.9	205.3 22.5	14.6 2.1	39.9 3.6	57.9 4.4	45.7 1.6	16.9 0.9	38.2 1.8	287.7 12.7	109.7 7.8
Georgia Inside and Outside Combined	134.0 9.7	166.1 20.5	224.0 25.9	268.6 22.0	89.2 8.6	60.6 5.3	105.9 6.4	40.0 2.5	30.9 1.7	18.5 1.0	33.4 1.4	182.6 7.5	115.5 7.9
Florida Outside	218.5 6.5	230.7 15.6	134.7 7.7	60.0 4.6	9.3 3.6	44.3 12.0	208.8 20.6	166.7 8.2	123.2 2.7	214.9 3.8	180.8 3.3	57.5 1.5	156.0 5.7
<u>Menticirrhus</u> spp.													
South Carolina Outside	120.2 3.3	129.8 6.8	155.5 16.6	45.4 8.2	22.3 1.5	10.7 1.0	111.3 5.6	52.0 2.9	163.3 4.9	129.6 4.5	68.4 5.5	119.6 3.4	100.8 4.8
Georgia Inside	145.8 9.7	33.7 6.8	34.8 3.4	29.4 2.0	7.4 0.7	11.4 0.9	17.9 0.8	23.7 1.3	20.9 1.5	42.4 2.6	76.5 2.8	84.8 3.2	33.9 2.3
Georgia Outside	202.8 16.3	109.5 10.8	28.8 4.9	85.7 12.5	22.1 2.4	17.5 2.5	25.5 2.3	53.8 4.1	90.3 3.4	180.7 9.3	230.6 10.7	175.7 7.8	99.1 7.1
Georgia Inside and Outside Combined	174.5 12.7	78.9 9.8	32.5 3.8	46.5 3.8	11.9 1.2	13.3 1.2	21.6 1.3	36.0 2.2	45.6 2.5	105.3 5.9	162.0 6.8	137.4 5.6	61.2 4.2
Florida Outside	186.0 5.5	134.2 9.1	116.8 6.7	248.4 19.1	3.3 1.3	1.3 0.4	28.1 2.8	60.3 3.0	286.0 6.4	754.3 13.4	448.3 8.2	123.3 3.3	198.9 7.3
<u>Chloroscombrus chrysurus</u>													
South Carolina Outside	-	-	-	-	-	6.0 0.6	46.5 2.3	37.4 2.1	4.2 0.1	20.0 0.7	6.8 0.6	-	11.6 0.6
Georgia Inside	13.2 0.9	7.9 1.6	3.1 0.3	0.2 *	15.4 1.4	17.1 1.3	16.1 0.7	30.3 1.6	18.1 1.3	18.7 1.1	16.9 0.6	26.0 1.0	14.5 1.0
Georgia Outside	120.1 9.7	40.9 4.0	13.0 2.2	0.9 0.1	23.1 2.5	106.3 15.3	119.0 10.7	171.9 13.0	306.6 11.5	58.5 3.0	98.9 4.6	36.2 1.6	93.1 6.7
Georgia Inside and Outside Combined	66.9 4.9	27.6 3.4	6.8 0.8	0.4 *	17.8 1.7	44.1 3.9	66.7 4.1	88.4 5.4	120.7 6.5	36.8 2.1	62.4 2.6	31.9 1.3	47.5 3.3
Florida Outside	331.1 9.8	4.0 0.3	15.3 0.9	49.8 3.8	73.0 27.8	79.7 21.6	58.1 5.7	138.9 6.8	262.8 5.9	624.6 11.1	458.1 8.4	1,107.3 29.5	274.8 10.1

Table 12.--Continued

<u>Cynoscion regalis</u>	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
South Carolina Outside	698.7 18.9	31.5 1.6	1.5 0.2	9.2 1.7	37.0 2.5	50.0 4.6	78.6 4.0	40.6 2.2	117.9 3.8	178.0 6.2	186.4 15.0	221.5 6.2	141.4 6.8
Georgia Inside	49.3 3.3	9.9 2.0	15.2 1.5	91.8 6.3	38.6 3.5	54.0 4.1	93.5 4.3	117.2 5.4	72.6 5.2	96.1 5.9	52.7 2.0	42.5 1.6	64.9 4.3
Georgia Outside	59.5 4.8	42.5 4.2	6.5 1.1	44.3 6.5	25.2 2.8	7.8 1.1	48.3 4.4	53.5 4.0	70.4 2.6	48.7 2.5	56.7 2.6	120.8 5.4	49.8 3.6
Georgia Inside and Outside Combined	54.4 4.0	39.3 3.6	11.9 1.4	77.4 6.3	34.5 3.3	40.0 3.5	70.8 4.3	91.1 5.6	71.8 3.9	74.6 4.2	54.9 2.3	87.9 3.6	58.6 4.0
Florida Outside	137.1 4.1	36.1 2.4	35.8 2.1	38.6 3.0	-	0.7 0.2	4.7 0.5	16.2 0.8	68.9 1.5	70.3 1.3	67.2 1.2	54.7 1.5	46.2 1.7
<u>Etiopus crossotus</u>													
South Carolina Outside	16.2 0.4	10.9 0.6	27.1 2.9	2.2 0.4	-	-	1.0 0.1	7.5 0.4	64.3 1.9	14.0 0.5	11.6 0.9	18.2 0.5	15.3 0.7
Georgia Inside	131.8 8.7	64.5 13.0	66.7 6.5	91.1 6.3	9.6 0.9	2.5 0.2	6.0 0.3	16.8 0.9	34.4 2.4	128.2 7.8	278.8 10.3	420.4 15.7	74.3 4.9
Georgia Outside	87.2 7.0	44.8 4.4	16.7 2.8	5.1 0.8	4.6 0.5	1.0 0.1	8.6 0.8	3.6 0.3	25.3 0.9	42.7 2.2	60.4 2.8	67.9 3.0	29.9 2.2
Georgia Inside and Outside Combined	109.4 7.9	52.8 6.5	47.7 5.5	65.0 5.3	8.1 0.8	2.1 0.2	7.3 0.4	11.4 0.7	31.2 1.7	89.3 5.0	157.6 6.6	216.2 8.9	55.7 3.8
Florida Outside	24.1 0.7	25.2 1.7	21.3 1.2	12.5 1.0	3.7 1.4	1.7 0.5	8.1 0.8	14.9 0.7	36.8 0.8	25.1 0.5	35.2 0.6	6.1 0.2	19.1 0.7
<u>Bagre marinus</u>													
South Carolina Outside	-	-	-	-	16.7 1.1	24.7 2.3	15.8 0.8	14.6 1.1	104.0 3.1	168.8 5.9	0.2 *	-	28.6 1.4
Georgia Inside	-	-	*	5.8 0.4	23.2 2.1	46.2 3.5	26.7 1.2	103.4 5.6	109.2 7.8	52.2 3.2	7.4 0.3	0.3 *	38.2 2.5
Georgia Outside	-	-	-	5.7 0.8	42.0 4.6	2.0 0.3	15.0 1.4	26.3 2.0	142.7 5.4	75.1 3.8	90.9 4.2	-	32.9 2.4
Georgia Inside and Outside Combined	-	-	*	5.8 0.5	29.0 2.8	32.8 2.9	21.0 1.3	71.7 4.4	121.1 6.5	62.6 3.5	53.8 2.2	0.1 *	36.0 2.5
Florida Outside	146.1 4.3	4.6 0.3	19.0 1.1	5.1 0.4	0.3 0.1	1.7 0.5	1.4 0.1	2.5 0.1	692.8 15.4	138.9 2.5	186.1 3.4	80.1 2.1	121.3 4.5
<u>Cynoscion nothus</u>													
South Carolina Outside	27.6 0.7	5.6 0.3	3.1 0.3	5.5 1.0	32.0 2.2	6.0 0.6	43.4 2.2	44.4 2.5	22.0 0.7	32.4 1.1	68.2 5.5	12.0 0.3	25.5 1.2
Georgia Inside	0.2 *	-	-	0.3 *	5.6 0.5	1.7 *	0.6 *	0.6 *	-	0.5 *	1.4 0.1	-	1.0 0.1
Georgia Outside	0.7 0.1	* *	* *	8.1 1.2	3.6 0.4	7.4 1.1	14.0 1.3	79.7 6.0	134.2 5.0	1.0 0.1	13.5 0.6	11.9 0.5	25.2 1.8
Georgia Inside and Outside Combined	0.4 *	* *	* *	2.6 0.2	5.0 0.5	3.4 0.3	7.2 0.4	33.2 2.0	47.7 2.6	0.7 *	8.1 0.3	6.9 0.3	11.2 0.8
Florida Outside	296.6 8.8	93.3 6.3	161.5 9.3	500.6 38.4	23.0 8.8	80.0 21.7	52.9 5.2	197.9 9.7	325.6 7.3	253.1 4.5	492.3 9.0	611.8 16.3	262.2 9.6
<u>Galeichthys felis</u>													
South Carolina Outside	-	-	-	1.4 0.3	1.7 0.1	-	66.0 3.3	15.6 0.9	49.0 1.5	15.6 0.5	-	-	15.6 0.7
Georgia Inside	0.8 0.1	* *	0.4 *	52.0 3.6	87.5 8.0	114.4 8.6	90.5 4.2	152.7 8.3	40.2 2.9	17.2 1.1	6.9 0.3	-	56.9 3.8
Georgia Outside	2.0 0.2	-	0.2 *	16.2 2.4	7.4 0.8	6.4 0.9	14.0 1.3	42.0 3.2	29.0 1.1	22.0 1.1	22.5 1.1	3.5 0.2	14.2 1.0
Georgia Inside and Outside Combined	1.4 0.1	* *	0.3 *	41.1 3.4	62.9 6.1	81.7 7.2	52.9 3.2	107.3 6.6	36.1 2.0	19.4 1.1	15.6 0.6	2.1 0.1	39.0 2.7
Florida Outside	4.9 0.2	-	29.0 1.7	13.7 1.1	0.3 0.1	0.3 0.1	6.0 0.6	33.6 1.7	24.0 2.8	98.9 1.8	41.6 0.8	3.3 0.1	32.1 1.2

Table 12.--Continued

<u>Anchoa</u> sp.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
South Carolina Outside	23.1 0.6	72.0 3.7	155.5 16.6	13.8 2.5	235.0 16.1	121.0 11.2	8.3 0.4	12.1 0.7	1.3 *	47.2 1.6	30.8 2.5	50.0 1.6	53.1 2.5
Georgia Inside	48.2 3.2	12.9 2.6	34.9 3.4	72.5 5.0	37.6 3.4	31.3 2.4	9.5 1.4	6.5 0.4	18.3 1.2	96.5 5.9	170.6 6.5	72.9 2.7	43.4 2.9
Georgia Outside	33.2 2.7	29.5 2.9	40.3 6.8	29.2 4.3	13.5 1.5	22.4 3.2	5.1 0.5	5.1 0.4	23.7 0.9	39.0 2.0	67.7 3.2	36.4 1.6	27.4 2.0
Georgia Inside and Outside Combined	40.6 3.0	22.8 2.8	36.9 4.3	59.4 4.9	30.2 2.9	28.6 2.5	7.3 0.4	5.9 0.4	18.9 1.0	70.4 3.9	116.3 4.9	51.8 2.1	36.7 2.5
Florida Outside	8.0 0.2	15.8 1.1	14.7 0.8	18.3 1.4	2.3 0.9	28.3 7.7	0.6 0.1	3.8 0.2	1.2 *	0.6 *	-	5.6 0.2	6.7 0.3
<u>Brevoortia</u> sp.													
South Carolina Outside	345.1 9.3	275.1 14.3	75.8 8.1	9.2 1.7	114.7 7.9	101.7 9.4	5.8 0.3	2.4 0.1	0.3 *	1.6 0.1	1.2 0.1	3.1 0.1	72.9 1.5
Georgia Inside	49.9 3.3	66.1 13.3	31.4 3.0	10.3 0.7	9.1 0.8	11.1 0.6	7.2 0.3	2.0 0.1	0.3 *	1.3 0.1	1.6 0.1	4.3 1.2	13.9 0.9
Georgia Outside	107.9 8.7	224.6 22.0	52.4 8.9	2.1 0.3	28.1 3.1	15.9 2.3	3.7 0.3	1.1 0.1	1.1 *	4.3 *	1.1 0.1	13.7 0.6	43.6 3.1
Georgia Inside and Outside Combined	79.1 5.7	160.6 19.9	39.3 4.6	7.8 0.6	15.0 1.4	12.6 1.1	5.5 0.3	1.7 0.1	1.6 *	1.9 0.1	1.8 0.1	9.7 0.4	26.4 1.6
Florida Outside	0.9 *	69.2 4.7	73.3 4.2	6.5 0.5	0.7 0.3	-	0.4 *	1.8 0.1	-	2.9 0.1	0.5 *	1.4 *	12.8 0.5
<u>Trichiurus</u> <u>lepturus</u>													
South Carolina Outside	10.5 0.3	28.4 1.5	1.5 0.2	4.2 0.8	13.0 0.9	15.7 1.5	19.8 1.0	25.2 1.4	4.0 0.1	14.4 0.5	2.0 0.2	1.5 *	11.5 0.6
Georgia Inside	35.4 2.3	4.4 0.9	21.9 2.1	27.2 1.9	59.5 5.5	49.5 3.7	36.5 1.7	8.5 0.5	1.7 0.1	9.5 0.6	7.9 0.3	6.2 0.2	24.1 1.6
Georgia Outside	13.5 1.1	16.2 1.6	25.1 4.2	19.2 2.8	35.5 3.9	26.8 3.9	56.3 5.1	39.2 3.0	16.0 0.6	1.6 0.1	23.6 1.1	59.4 2.6	27.8 2.0
Georgia Inside and Outside Combined	24.4 1.8	11.4 1.4	23.1 2.7	24.8 2.0	52.2 5.0	42.6 3.8	46.2 2.8	21.1 1.3	6.8 0.4	5.9 0.3	16.6 0.7	37.0 1.5	25.7 1.8
Florida Outside	64.7 1.9	38.4 2.6	12.3 0.7	13.8 1.1	-	3.3 0.9	15.2 1.5	20.2 1.0	35.8 0.8	24.6 0.4	31.5 0.6	70.8 1.9	30.6 1.1
<u>Trinectes</u> <u>maculatus</u>													
South Carolina Outside	15.1 0.4	1.6 0.1	4.5 0.5	14.6 2.6	31.7 2.2	5.3 0.5	25.5 1.3	11.4 0.6	55.0 1.7	39.2 1.4	9.8 0.8	13.5 0.4	19.4 0.9
Georgia Inside	0.6 *	1.8 0.4	0.9 0.1	8.8 0.6	15.3 1.4	29.6 2.2	40.0 1.9	80.0 4.3	41.8 3.0	34.9 2.1	29.4 1.1	14.5 0.5	26.7 1.8
Georgia Outside	9.5 0.8	3.4 0.3	1.5 0.3	7.6 1.1	2.9 0.3	2.3 0.3	26.7 2.4	10.4 0.8	19.6 0.7	37.8 1.9	28.1 1.3	24.8 1.1	14.6 1.1
Georgia Inside and Outside Combined	5.0 0.4	2.7 0.3	1.1 0.1	8.4 0.7	11.5 1.1	21.3 1.9	33.5 2.0	51.4 3.2	33.9 1.8	36.2 2.0	28.7 1.2	20.5 0.8	21.6 1.5
Florida Outside	2.0 0.1	4.4 0.3	0.7 *	32.0 2.5	-	1.3 0.4	16.5 1.6	26.9 1.3	74.8 1.7	108.0 1.9	56.0 1.0	14.7 0.4	30.2 1.1
<u>Urophycis</u> sp.													
South Carolina Outside	3.5 0.1	71.6 3.7	305.3 32.6	208.5 37.5	1.0 0.1	0.7 0.1	-	-	-	-	-	-	54.3 2.6
Georgia Inside	2.5 0.2	92.1 18.5	167.2 16.2	27.1 1.9	1.5 0.1	-	-	-	-	-	-	-	25.8 1.7
Georgia Outside	5.7 0.5	48.4 4.8	73.8 12.5	20.7 3.2	1.3 0.1	-	-	-	-	-	-	0.1 *	14.1 1.0
Georgia Inside and Outside Combined	4.1 0.3	66.0 8.2	131.8 15.2	25.2 2.1	1.5 0.1	-	-	-	-	-	-	* *	20.9 1.4
Florida Outside	0.1 *	25.8 1.7	39.0 2.2	20.9 1.6	-	-	-	-	-	-	-	-	6.5 0.2

Table 12.--Continued

<u>Vomer setapinnis</u>	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
South Carolina Outside	1.1 *	-	-	-	-	1.0 0.1	0.5 *	6.4 3.4	2.7 0.1	16.4 0.6	4.4 0.4	7.3 0.2	3.4 0.2
Georgia Inside	-	-	*	-	1.9 0.2	*	0.3 *	1.5 0.1	3.9 0.3	5.1 0.3	2.1 0.1	0.2 *	1.4 0.1
Georgia Outside	1.1 0.1	1.5 0.1	0.9 0.2	0.9 0.1	2.5 0.3	1.1 0.2	0.2 *	6.7 0.5	11.9 0.4	9.5 0.5	90.1 4.2	90.3 4.0	16.2 1.2
Georgia Inside and Outside Combined	0.6 *	0.3 *	0.4 *	0.3 *	2.1 0.2	0.3 *	0.2 *	3.7 0.2	6.8 0.4	7.1 0.4	50.9 2.1	52.3 2.1	7.6 0.5
Florida Outside	131.8 3.9	10.2 0.7	24.3 1.4	3.2 0.3	1.3 0.5	9.7 2.6	1.1 0.1	11.6 0.6	80.4 1.8	328.6 5.8	271.2 5.0	443.4 11.8	110.8 4.1
<u>Peprilus olepidotus</u>													
South Carolina Outside	1.5 *	3.6 0.2	-	-	3.0 0.1	0.7 0.1	0.5 *	1.4 0.1	1.0 *	-	1.2 0.1	11.6 0.3	2.0 0.1
Georgia Inside	9.3 0.6	4.3 0.9	12.2 1.2	50.3 3.5	92.0 8.4	25.1 1.9	10.7 0.5	6.5 0.4	7.7 0.5	9.9 0.6	8.2 0.3	3.9 0.2	25.1 1.7
Georgia Outside	10.1 0.8	5.7 0.6	7.9 1.3	12.9 1.9	16.5 1.8	14.8 2.1	5.4 0.5	6.8 0.5	12.1 0.5	11.6 0.6	8.3 0.4	34.5 1.5	11.8 0.9
Georgia Inside and Outside Combined	9.7 0.7	5.1 0.6	10.6 1.2	38.9 3.2	68.9 6.6	22.0 1.9	8.1 0.5	6.7 0.4	9.3 0.5	10.7 0.6	8.2 0.3	21.6 0.9	19.5 1.3
Florida Outside	26.9 0.8	52.1 3.5	17.2 1.0	1.1 0.1	-	0.3 0.1	1.6 0.2	9.8 0.5	5.2 0.1	15.4 0.3	16.0 0.3	18.9 0.5	14.9 0.6

Table 13.--List of scientific and common names of fish

<u>Family</u>	<u>Species</u>	<u>Common name</u>
Carcharhinidae	<u>Carcharhinus</u> spp. <u>Scoliodon terraenovae</u> (Richardson)	Shark Atlantic sharpnose shark
Sphyrnidae	<u>Sphyrna tiburo</u> (Linnaeus) <u>Sphyrna zygaena</u> (Linnaeus)	Bonnethead Smooth hammerhead
Pristidae	<u>Pristis pectinatus</u> Latham	Smalltooth sawfish
Rhinobatidae	<u>Rhinobatos lentiginosus</u> (Garman)	Atlantic guitarfish
Torpedinidae	<u>Torpedo nobiliana</u> Bonaparte	Atlantic torpedo
Rajidae	<u>Raja eglantaria</u> Bosc	Clearnose skate
Dasyatidae	<u>Dasyatis americana</u> Hildebrand and Schroeder <u>Dasyatis centroura</u> (Mitchill) <u>Dasyatis sabina</u> (LeSueur)	Southern stingray Roughtail stingray Atlantic stingray
Gymnuridae	<u>Gymnura micrura</u> (Bloch and Schneider)	Smooth butterfly ray
Myliobatidae	<u>Actobatus narinari</u> (Euphrasen)	Spotted eagle ray
Rhinopterae	<u>Rhinoptera bonasus</u> (Mitchill)	Cownose ray
Acipenseridae	<u>Acipenser oxyrhynchus</u> Mitchill	Atlantic sturgeon
Lepisosteidae	<u>Lepisosteus osseus</u> (Linnaeus)	Longnose gar
Clupeidae	<u>Prevoortia</u> spp. (<u>tyrannus</u> and <u>smithi</u>) <u>Opisthonema oglinum</u> (LeSueur) (All other herrings--misc. genera and species)	Menhaden Thread herring Herring
Engraulidae	<u>Anchoa</u> spp. (largely <u>mitchilli</u> and <u>hepsetus</u>)	Anchovy
Synodontidae	<u>Synodus foetens</u> (Linnaeus) <u>Trachinocephalus myops</u> (Forster)	Inshore lizardfish Snakefish
Ariidae	<u>Aegeu marinus</u> (Mitchill) <u>Galeichthys felis</u> (Linnaeus)	Gafftopsail catfish Sea catfish
Ophichthidae	<u>Ophichthus</u> spp.	Snake eel
Gadidae	<u>Urophycis</u> spp.	Hake
Fistulariidae	<u>Fistularia tabacaria</u> Linnaeus	Cornetfish
Syngnathidae	<u>Hippocampus</u> spp. <u>Syngnathus</u> spp.	Seahorse Pipefish
Serranidae	<u>Centropristis striatus</u> (Linnaeus) <u>Centropristis philadelphicus</u> (Linnaeus) <u>Diplectrum formosum</u> (Linnaeus)	Black sea bass Rock sea bass Sand perch
Lobotidae	<u>Lobotes surinamensis</u> (Bloch)	Tripletail
Pomatomidae	<u>Pomatomus saltatrix</u> (Linnaeus)	Bluefish
Rachycentridae	<u>Rachycentron canadum</u> (Linnaeus)	Cobia
Carangidae	<u>Caranx crysos</u> (Mitchill) <u>Caranx</u> spp. <u>Chloroscombrus chrysurus</u> (Linnaeus) <u>Decapterus punctatus</u> (Agassiz) <u>Selene vomer</u> (Linnaeus) <u>Trachinotus</u> spp. <u>Trachurus lathami</u> Nichols <u>Vomer setapinnis</u> (Mitchill)	Blue runner Jackfish Bumper Round scad Lookdown Pompano Rough scad Atlantic moonfish
Gerridae	<u>Eucinostomus</u> spp.	Mojarra
Pomadasyidae	<u>Haemulon aurolineatum</u> (Cuvier) <u>Orthopristis chrysopterus</u> (Linnaeus)	Tomtate Pigfish

Table 13.--Continued

<u>Family</u>	<u>Species</u>	<u>Common name</u>
Sciaenidae	<u>Eairdiella chrysura</u> (Lacépède)	Yellowtail or silver perch
	<u>Cynoscion nebulosus</u> (Cuvier)	Spotted seatrout
	<u>Cynoscion nothus</u> (Holbrook)	White seatrout
	<u>Cynoscion regalis</u> (Bloch and Schneider)	Gray seatrout
	<u>Equetus acuminatus</u> (Bloch and Schneider)	Cubby
	<u>Equetus lanceolatus</u> (Linnaeus)	Jackknife-fish
	<u>Larimus fasciatus</u> Holbrook	Banded drum
	<u>Leiostomus xanthurus</u> Lacépède	Spot
	<u>Menticirrhus</u> spp. (largely <u>americanus</u>)	King whiting
	<u>Micropogon undulatus</u> (Linnaeus)	Atlantic croaker
	<u>Pogonias cromis</u> (Linnaeus)	Black drum
	<u>Stellifer lanceolatus</u> (Holbrook)	Star drum
Mullidae	<u>Mullus auratus</u> Jordan and Gilbert	Red goatfish
Sparidae	<u>Lagodon rhomboides</u> (Linnaeus)	Pinfish
	<u>Stenotomus</u> spp.	Scup or porgy
Ephippidae	<u>Chaetodipterus faber</u> (Broussonet)	Atlantic spadefish
Labridae	<u>Xyrichtys</u> spp.	Razorfish
Trichiuridae	<u>Trichiurus lepturus</u> Linnaeus	Atlantic cutlassfish
Scombridae	<u>Scomberomorus maculatus</u> (Mitchill)	Spanish mackerel
Gobiidae	<u>Gobionellus oceanicus</u> (Pallas)	Highfin goby
Scorpaenidae	<u>Scorpaena</u> spp.	Scorpionfish
Triglidae	<u>Prionotus</u> spp.	Searobin
Uranoscopidae	<u>Astroscoptes y-graecum</u> (Cuvier)	Southern stargazer
Blenniidae	<u>Hypsoblennius</u> spp.	Blenny
Ophidiidae	<u>Rissola marginata</u> (DeKay)	Striped cusk-eel
Stromateidae	<u>Peprilus alepidotus</u> (Linnaeus)	Southern harvestfish
	<u>Poronotus triacanthus</u> (Peck)	Butterfish
Sphyracnidae	<u>Sphyracna</u> spp. (largely <u>guachancho</u>)	Guaguanche
Mugilidae	<u>Mugil cephalus</u> Linnaeus	Striped mullet
Polynemidae	<u>Polydactylus octonemus</u> (Girard)	Atlantic threadfin
Bothidae	<u>Ancylonsetta quadrocellata</u> Gill	Ocellated flounder
	<u>Citharichthys</u> spp. (largely <u>spilopterus</u>)	Whiff
	<u>Etropus crossotus</u> Jordan and Gilbert	Fringed flounder
	<u>Paralichthys dentatus</u> (Linnaeus)	Summer flounder
	<u>Paralichthys lethostigma</u> Jordan and Gilbert	Southern flounder
	<u>Scophthalmus aquosus</u> (Mitchill)	Windowpane
	<u>Syacium</u> spp.	Flounder
	<u>Bothus ocellatus</u> (Agassiz)	Eyed flounder
Soleidae	<u>Trinectes maculatus</u> (Bloch and Schneider)	Hogchoker
Cynoglossidae	<u>Symphurus</u> spp. (largely <u>plagiusa</u>)	Tonguefish
Echeneidae	<u>Echeneis naucrates</u> Linnaeus	Sharksucker
Balistidae	<u>Balistes</u> spp.	Triggerfish
Monacanthidae	<u>Alutera schoepfii</u> (Walbaum)	Orange filefish
	<u>Stephanolepis</u> spp.	Filefish
Ostraciidae	<u>Acanthostracion</u> spp. (largely <u>quadricornis</u>)	Cowfish
Tetraodontidae	<u>Lagocephalus laevigatus</u> (Linnaeus)	Smooth puffer
	<u>Sphaeroides</u> spp.	Puffer
Diodontidae	<u>Chilomycterus schoepfii</u> (Walbaum)	Striped burrfish
Batrachoididae	<u>Opsanus tau</u> (Linnaeus)	Toadfish
	<u>Porichthys porosissimus</u> (Valenciennes)	Atlantic midshipman
Ogcocephalidae	<u>Ogcocephalus</u> spp. (largely <u>vespertilio</u>)	Batfish

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Created in 1849, the Department of the Interior--a department of conservation--is concerned with the management, conservation, and development of the Nation's water, fish, wildlife, mineral, forest, and park and recreational resources. It also has major responsibilities for Indian and Territorial affairs.

As the Nation's principal conservation agency, the Department works to assure that nonrenewable resources are developed and used wisely, that park and recreational resources are conserved for the future, and that renewable resources make their full contribution to the progress, prosperity, and security of the United States--now and in the future.



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